

Purchasing Week

McGRAW-HILL'S NATIONAL NEWSPAPER OF PURCHASING

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\$6 A YEAR U.S.
AND CANADA

\$25 A YEAR
FOREIGN

Autumn Is Coming, But Prices Won't Fall

Electronic Components Are Tinier, Prices Smaller at Wescon Exhibit

Los Angeles—Miniaturization hogged the spotlight here last week as 700 exhibitors displayed their wares at the Western Electronics Show and Conference. The theme of the show might well have been, as one observer put it—"the smallest component in the most compact unit at the lowest price."

The accent on midget components was virtually across the board—and prices were keeping pace with the trend. But, although manufacturers were loudly crediting technological breakthroughs for recent price drops, it's no secret that competitive pressures had played a part in the decline.

Miniaturization, subminiaturization, microminiaturization—these words keynoted the three-day exhibit, Aug. 22-25.

At least five firms, Hughes, Texas Instruments, Rheem Semi-conductor, Sylvania, and Transistor Electronics, were displaying microtransistors, the newest development in the art of product shrinkage.

Elgin Advance Relays was (*Turn to page 34, column 1*)

Impact Extrusion Press Bolsters Aluminum's Bid For Gains in Can Market

Tiffen, Ohio—National Machinery Co. has unveiled a new impact extrusion press that it claims can turn out 120 aluminum cans a minute ready for trimming, flanging, cleaning, coating, filling, and closing.

The machine, soon to be delivered to a Midwest brewery, produces 5-in. high cans from disks one-eighth in. thick and 2½ in. in diameter. A company spokesman described the 48,000-lb. press as similar to the aluminum can making machine developed last year by E. W. Bliss Co., Canton, Ohio (PW, Dec. 21, '59, p. 7).

It's no secret that independent as well as captive can makers long have been seeking aluminum can-making machinery that would (*Turn to page 34, column 1*)

Rock Salt Buyers Counterattack To Stop Identical Bids

New York—A three-way squeeze is being exerted on major suppliers of rock salt to end alleged price fixing.

• The Justice Dept. is set to push a grand jury investigation into charges of identical bidding.

• Both governmental and industrial buyers are eyeing foreign sources for rock salt.

• Strong competition for rock salt suppliers has been generated by makers of substitute materials.

The three-dimensional pressure was heightened by a summer-long investigation of New York City's purchases of rock salt, which resulted in the sus- (*Turn to page 33, column 1*)

Tool Makers Schedule Triple-Header in Chicago

Chicago—The machine tool industry, driving hard to meet the demands of metalworkers for lower production costs, will stage the biggest three-ring show in its history here next week.

An estimated 125,000 metalworking executives, engineers, and purchasing agents will converge on three separate exhibitions of machine tools, controls, and accessories. What they will see is a vast array of more than 1,500 different machine tools op- (*Turn to page 12, column 1*)

P/W PANORAMA

• Mistakes and Thievery can riddle your inventory unless you have good internal controls. Check your precautions against the list on pages 20-21 and see where you need strengthening. The story will give you some helpful hints.

• Another Type of Control—numerical control—will be getting the spotlight at the Chicago machine tool exhibitions. See story above for details of the shows, and read Product Perspective on page 25 for numerical controls briefing.

• Outdated Rates may be stunting the growth of the air freight business. That's the belief of the Civil Aeronautics Board, which has hinted that now that the jet age is here, air freight rates may be cut. See page 14 for the details.

• Machinery and Equipment Makers have toned down their previously optimistic forecasts about the last half of 1960. But they're still expecting a good finish, and they foresee a rosy 1961. See the story on page 4 for the details.

FIRMER PRICES ARE IN SIGHT

These Factors Point to Some Rises:

Demand: Fall business pickup will mean a 7½ % boost over summer lows.

Labor: New wage agreements (averaging 9¢/hr.) will force some hikes.

Inventories: End of stock paring in steel and other materials will strengthen tags.

Government: Lower interest rates, some step-up in spending, will pep up buying.

But These Will Keep Rises in Bounds:

Capacity: Industry will be operating only a little over 80% of rated capacity.

Imports: A record year will keep lid on metal and machinery hikes.

Productivity: Hefty rises will tend to offset rising labor and other costs.

Backlogs: Unfilled orders—lowest in 17 months—also will be a restraint.

Estimate of Wholesale Price Boosts: ½ %

Pennsy Negotiators Accuse Union Of Butting Into Purchasing Decisions

Philadelphia—The Pennsylvania Railroad charged last week that the Transport Workers Union was trying to interfere with its purchasing decisions.

The PRR's purchasing activities, especially with respect to leased equipment, cropped up at bargaining talks as negotiators sought to head off a Sept. 1 system-wide strike.

The strike threat had kept purchasing departments at industrial firms throughout the country busy all last week lining up alternate shipping routes for use in case last ditch efforts failed.

In Pittsburgh, meanwhile, federal mediators also worked overtime trying to arrange settlement of another railroad walkout that had crippled production at five U. S. Steel Corp. mills.

Mediators in the Pittsburgh strike had expressed belief they could arrange a settlement by last weekend.

Charges that the TWU was attempting to interfere with the Pennsy's purchasing decisions (*Turn to page 34, column 3*)

This Week's

Purchasing Perspective

AUG. 29-
SEPT. 4

PRICE PRESSURES—Steel prices still are a subject producers will not discuss. And they'll probably remain mum until the business picture clears. In addition, steel buyers in virtually every industrial category, led by automakers and can manufacturers, are ganging up on steel on the subject of pricing.

• In effect, many steel consumers have drawn a line and dared the steel industry to cross it. Metalworking firms paged during the past few days by PURCHASING WEEK were virtually unanimous on their own price outlook, saying: **Ours will remain stable provided material costs (meaning steel) stay put.**

• Steelmakers are on the spot and they know it; but that won't deter them from taking another look at their price structures before the end of the year when they have paid out December increases required in their labor contracts.

• But with steel operating rates still depressed by inventory-cutting and with the auto industry delaying orders until it gets a clearer fix on the 1961 model run, chances of steel price changes before next January are rapidly diminishing. In fact, many sources say that price boosts will be delayed until 1961.

SLOW BUT STEADY—Many firms around the country are reading their individual outlooks in those terms. They're hopefully sweating out assurances that September will be the turning point. Here's how various segments of the metalworking industry size up the situation:

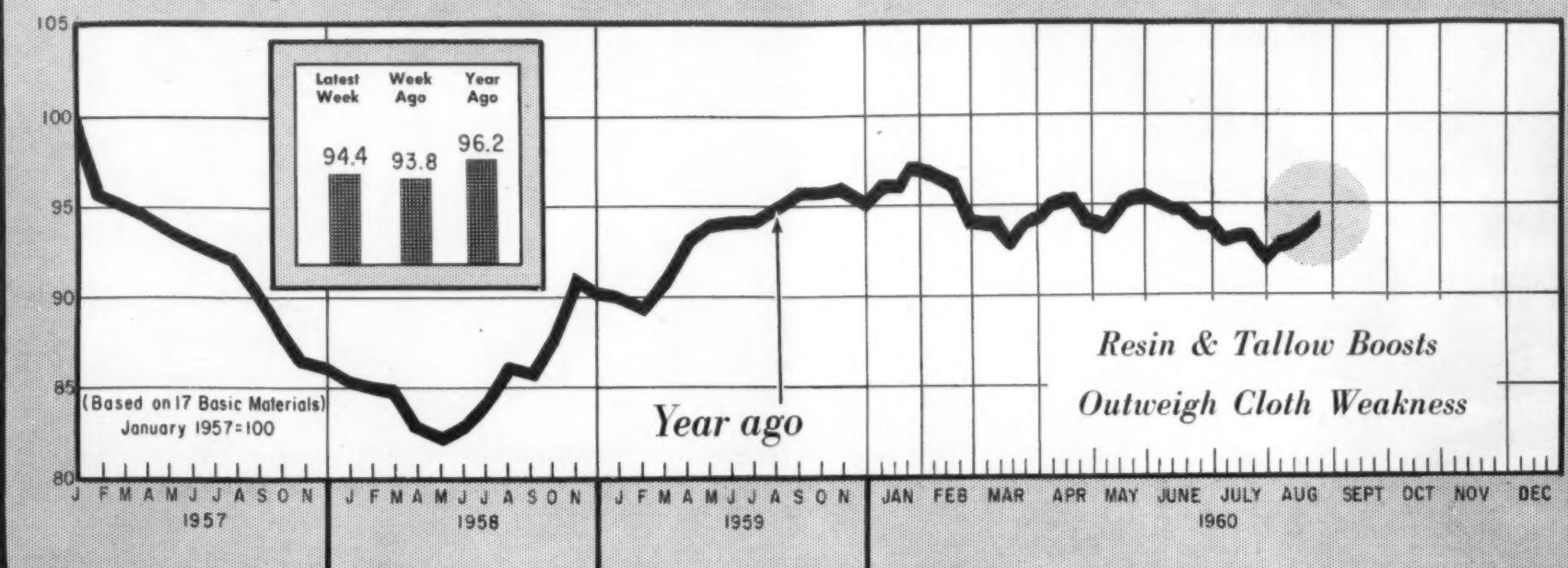
(*Turn to page 33, column 4*)



EPOXY PAINT APPRAISAL: Officials inspect coatings on asphalt and concrete after 8-month test by 4-million in Los Angeles.

Purchasing Week Industrial Materials Price Barometer

This index, based on 17 basic materials, was especially designed by the McGraw-Hill Department of Economics.



This Week's Commodity Prices

METALS

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Pig iron, Bessemer, Pitts., gross ton	67.00	67.00	67.00	0
Pig iron, basic, valley, gross ton	66.00	66.00	66.00	0
Steel, billets, Pitts., net ton	80.00	80.00	80.00	0
Steel, structural shapes, Pitts., cwt	5.50	5.50	5.50	0
Steel, structural shapes, Los Angeles, cwt	6.20	6.20	6.20	0
Steel, bars, del., Phila., cwt	5.975	5.975	5.975	0
Steel, bars, Pitts., cwt	5.675	5.675	5.675	0
Steel, plates, Chicago, cwt	5.30	5.30	5.30	0
Steel scrap, #1 heavy, del. Pitts., gross ton	31.00	31.00	38.00	-18.4
Steel scrap, #1 heavy, del. Cleve., gross ton	31.00	31.00	38.00	-18.4
Steel scrap, #1 heavy, del. Chicago, gross ton	32.00	32.00	36.00	-11.1
Aluminum, pig, lb	.26	.26	.247	+5.3
Secondary aluminum, #380 lb	.24	.24	.238	+8
Copper, electrolytic, wire bars, refinery, lb	.326	.326	.302	+7.9
Copper scrap, #2, smelters price, lb	.26	.26	.243	+7.0
Lead, common, N.Y., lb	.12	.12	.13	-7.7
Nickel, electrolytic, producers, lb	.74	.74	.74	0
Tin, Straits, N.Y., lb	1.025	1.021	1.029	-4
Zinc, Prime West, East St. Louis, lb	.13	.13	.11	+18.2

FUELS†

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Fuel oil #6 or Bunker C, Gulf, bbl	2.30	2.30	2.00	+15.0
Fuel oil #6 or Bunker C, N.Y., barge, bbl	2.62	2.62	2.37	+10.5
Heavy fuel, PS 400, Los Angeles, rack, bbl	1.95	1.95	2.15	-9.3
Lp-Gas, Propane, Okla., tank cars, gal	.035	.035	.04	-12.4
Gasoline, 91 oct. reg., Chicago, tank car, gal	.125	.125	.12	+4.2
Gasoline, 84 oct. reg., Los Angeles, rack, gal	.105	.105	.105	0
Kerosene, Gulf, Cargoes, gal	.09	.09	.081	+11.1
Heating oil #2, Chicago, bulk, gal	.095	.095	.092	+3.3

CHEMICALS

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Ammonia, anhydros, refrigeration, tanks, ton	90.50	90.50	86.50	+4.6
Benzene, petroleum, tanks, Houston, gal	.34	.34	.31	+9.7
Caustic soda, 76% solid, drums, carlots, cwt	4.80	4.80	4.80	0
Coconut oil, inedible, crude, tanks, N.Y. lb	.15	.15	.18	-16.7
Glycerine, synthetic, tanks, lb	.293	.293	.278	+5.3
Linseed oil, raw, in drums, carlots, lb	.168	.168	.163	+3.1
Phthalic anhydride, tanks, lb	.185	.185	.165	+12.9
Polyethylene resin, high pressure molding, carlots, lb	.325	.325	.35	-7.9
Rosin, W.G. grade, carlots, fob N.Y. cwt	18.10	17.35	10.40	+74.0
Shellac, T.N., N.Y. lb	.31	.31	.31	0
Soda ash, 58%, light, carlots, cwt	1.55	1.55	1.55	0
Sulfur, crude, bulk, long ton	23.50	23.50	23.50	0
Sulfuric acid 66% commercial, tanks, ton	22.35	22.35	22.35	0
Tallow, inedible, fancy, tank cars, N.Y. lb	.059	.06	.068	-13.2
Titanium dioxide, anatase, reg. carlots, lb	.255	.255	.255	0

PAPER

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Book paper, A grade, Eng. finish, Untrimmed, carlots, cwt	17.75	17.75	17.20	+3.2
Bond paper, #1 sulfite, water marked 20 lb, car. lots, cwt	25.20	25.20	25.20	0
Chipboard, del. N.Y., carlots, ton	100.00	100.00	95.00	+5.3
Wrapping paper, std. Kraft, basis wt. 50 lb rolls	9.50	9.50	9.00	+5.6
Gummed sealing tape, #2, 60 lb basis, 600 ft. bundle	6.30	6.30	6.30	0
Old corrugated boxes, dealers, Chicago, ton	18.00	18.00	21.00	-14.3

BUILDING MATERIALS†

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Cement, Portland, bulk carlots, fob New Orleans, bbl	3.65	3.65	3.65	0
Cement, Portland, bulk carlots, fob N.Y., bbl	4.18	4.18	4.18	0
Southern pine, 2x4, s4s, trucklots, fob N.Y., mftbm	120.00	120.00	129.00	-7.0
Douglas fir, 2x4, s4s, carlots, fob Chicago, mftbm	135.00	135.00	144.00	-6.2
Spruce, 2x4, s4s, carlots, fob Toronto, mftbm	84.00	84.00	96.00	-12.5
Fir plywood, 1/4" AD, 4x8, dealer, crld, fob mill, msf	64.00	64.00	72.00	-11.1

TEXTILES

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Burlap, 10 oz. 40", N.Y., yd	.120	.120	.10	+20.0
Cotton middling, 1", N.Y., lb	.324	.325	.332	-2.4
Printcloth, 39", 80x80, N.Y., spot, yd	.198	.202	.195	+1.5
Rayon twill, 40½", 92x62, N.Y., yd	.225	.225	.26	-13.5
Wool tops, N.Y., lb	1.425	1.420	1.765	-19.3

HIDES AND RUBBER

	Aug. 24	Aug. 17	Year Ago	% Yrly Change
Hides, cow, light native, packers, Chicago, lb	.168	.168	.282	-40.4
Rubber, #1 std ribbed smoked sheets, N.Y., lb	.360	.368	.396	-9.1

† Source: Petroleum Week † Source: Engineering News-Record

This Week's

Price Perspective

AUGUST 29-SEPTEMBER 4

LONG AWAITED DROP IN BUSINESS BORROWING RATES by the nation's commercial banks raises some important planning questions:

- What effect will the move have on autumn production schedules?
- Will it reverse the trend toward tighter inventories?
- Does the new cut in the prime rate (from 5% to 4 1/2%) signal the beginning of a trend toward even cheaper money in the months ahead?
- What will be the effect on the over-all price level?

PRODUCTION IS BOUND to get a shot in the arm from the cut in bank borrowing rates.

The fact is that many firms have been holding up on borrowing (and hence on ordering) in expectation of cheaper money. Four Fed moves in the last three months (two reductions in the rediscount rate, a lowering of stock margins, and an easing of reserve requirements) convinced a lot of outfitts that it might be worthwhile to hold off on borrowing needs.

Last week's reduction will be the green light for these firms—and you can expect a sharp flurry in activity right after Labor Day.

The sharp recovery in the stock market following the interest rate reduction indicates Wall Street also thinks the move will be a strong business stimulant.

REPERCUSSIONS ON INVENTORY POLICY aren't likely to be too marked.

Based on recent PURCHASING WEEK surveys, high borrowing costs rank low on the list of reasons given for keeping a tight rein on industrial stocks.

The two major reasons—better inventory control methods and assurance of ample supplies—are still pretty strong factors. As such there's little incentive to raise inventory sights.

More important will be the indirect effect brought about by higher production schedules. This will necessitate carrying a somewhat higher volume of inventories—if current day's supply policy is to be maintained.

CURRENT LOWER RATES will probably hold steady—with no further drops anticipated over the next few months.

For the fact is that many bankers are going along with the reduction very reluctantly. These officials claim demand for their money has been brisk—and in line with their supply of loanable funds. As such, they don't think last week's reduction was warranted.

Some may even try to blunt the decline by reclassifying borrowers—making them ineligible for the prime rate. Since all other charges are scaled upward from the prime rate this would have the effect of limiting the drop in your own specific borrowing costs.

One thing for sure—you can expect increased bargaining on loan rates. Its a situation where shopping around could pay off in lower costs.

THE PRICE EFFECT of the new easier credit trend will be limited.

True, to the extent that cheaper money stimulates demand, it will tend to act as a firming influence.

In this connection, two specific areas that might be strengthened are capital equipment and construction. Demand for both are dependent—to some extent—on the availability and the cost of money.

But as the story on page 1 notes, there are just too many anti-inflationary forces around to warrant any sharp across-the-board boosts in these or any other major buying areas.

And, all in all, not much more than a 1/2% rise in the general industrial prices is anticipated for the rest of the year.

Benzene Price Tags Poise for Rise On Heels of Continued Short Supply

New York—Buyers of benzene, faced with a critical shortage of this chemical since the steel strike, may have to pay higher prices on contracts after Oct. 1.

Benzene producers admit that a price change is under consideration—and there are strong indications that buyers can expect to get notice Sept. 1 that benzene tags are going up 2¢ to 36¢/gal. Long term contracts call for 30 days notice on any price change.

The producers, both steel and oil firms, refused to commit themselves to a definite price hike at this time, but they did point to a number of factors that support an increase:

- Heavy demand both in the U.S. and abroad for end products using benzene.

- A "gray" market which has seen spot bids as high as 47¢/gal.

- Shallow inventories in intermediates.

- Continued short supply because of curtailed steel production.

A hike of 2¢ is the consensus of trade observers, because 36¢/gal. appears the market price favored by suppliers. Benzene was at the 36¢ figure in 1958 before an oversupply cut it to 31¢. The price was raised to 34¢ in January of this year.

Benzene, like naphthalene, a by-product of steel making, has been in short supply since the steel strike. However, unlike naphthalene, benzene is available from other than coke making sources.

Petroleum producers have been hustling to fill the gap left by cutbacks in steel. This year petro-benzene makers are expected to produce more than 275-million gallons of benzene out of a total of 510-million gallons produced. Last year benzene from all sources totaled 395-million gal.

This expansion in benzene could act as a brake to any price increase. Some producers fear that higher benzene tags may bring more producers into the market, a move which may eventually backfire into unhealthy price competition.

Meanwhile, buyers have been resorting to all the well-known tricks to scout up the scarce materials to keep plants going. There has been much "horse trading," swapping of materials, and taking over of freight rates from the suppliers. And this situation

Minneapolis - Honeywell Clips Prices 20% - 30% On Power Transistors

Chicago—Price reductions of 20% to 30% were put into effect last week by Minneapolis-Honeywell Regulator Co. on its line of germanium power transistors.

The cuts average 30% on seven units in the company's H5 line of 80-volt, low, medium, and high gain transistors; and 20% on four of the firm's tetrode transistors.

A company spokesman said the price cuts were made because of strong competition in the industry as well as improved production techniques and higher sales volume.

Pentagon Buying Policies Get New Going-Over

Washington — The Senate Armed Services Committee said again last week that military procurement officers should place more emphasis on formal advertised bidding in defense contracting. But it steered clear of any legislative proposals to overhaul the Armed Services procurement laws.

Bidding Problems

The committee conceded that formal advertised procurement poses problems for contracting officers in many types of weapon

projects, and pointed out that negotiated contracting does not necessarily mean the absence of price competition among potential suppliers to the armed services.

The committee's views resulted from an inquiry into Defense Dept. procurement practices which was authorized in the 1959 act extending the renegotiation law.

"Most, if not all, of the procurement problems in the Dept. of Defense can be solved administratively," the committee re-

ported, rather than by the enactment of new laws or corrective legislation.

No Major Changes

The Senate committee also rejected a proposal by its ranking Republican member, Sen. Leverett Saltonstall (Mass.) for major changes in the military procurement rules.

The Senate group's report was much milder than that of the House Armed Services Committee issued several months back.

Facts of Light!

CHAMPION Lamps

YOU SPEND NEARLY \$2.50 TO OPERATE A 25 CENT LAMP

The electric power required to operate a 25 cent incandescent lamp will amount to nearly \$2.50 before the lamp burns out. The efficiency with which a lamp converts electric power into usable light, then, is an important factor in considering lamp value.

YOU CAN'T GET BOTH HIGH EFFICIENCY AND LONG LIFE IN INCANDESCENT LAMPS

General service incandescent lamps are designed so that the ratio between life and efficiency results in lowest overall lighting cost for the average installation. When efficiency is increased, lamp life is shortened. When lamp life is extended, efficiency goes down. Occasionally it makes sense to sacrifice efficiency for long life; for instance, when installing "long life" reflector lamps in inaccessible locations to minimize the high maintenance costs.

THESE LAMPS EXPECT ROUGH TREATMENT

In order to withstand abuse such as the shock encountered in extension cord service, Rough Service lamps employ as many as 14 supports on the filament. Vibration Service Lamps also have special supports to withstand high frequency vibration such as produced by high speed machinery.

SPLITTING HAIRS IS IMPORTANT IN MAKING LAMPS

The filament wire in some incandescent lamps is only 1/5 the diameter of a human hair. A variation of only 1% in this tiny diameter can affect lamp life by 25%. Needless to say, it takes precision equipment and careful workmanship to insure that millions of bulbs a year pass Champion's rigid quality inspections.

CHAMPION LAMP WORKS, Lynn, Massachusetts

CHAMPION INCANDESCENT-FLUORESCENT • YOUR BEST BUY IN LAMPS

Washington Perspective

Washington economists are busy gathering management opinion on the likely course of business inventories. And so far they see little, if any, let-up in current close-to-the vest buying policies.

• Many forecasters turned pessimistic last week. The unexpected drop in housing construction for July and only a slight increase in retail sales for the month did little to cheer them up.

• But topping this was a feeling that increases in capital plant and equipment spending plans for next year will be somewhat less than spectacular. Results of new surveys on capital spending will be released soon.

Inventories already have dropped to a historical low in relation to the sales-inventory ratio. And if plant and equipment buying were to fall off, government forecasters see even further inventory reductions.

One top expert sums the situation up this way:

Inventory buying, already cautious, may become even more so. This economist feels the immediate question is not recession; the economy probably still has at least a quarter to go at a high level.

What is important to him is to assess businessmen's attitudes and decision-making processes right now. And he isn't optimistic about what he sees.

The view, widely shared, is that businessmen are in the process of revising their plans—downward. If so, results could start showing up in the general level of business performance by late this year or early next.

And as part of this readjustment in thinking, business may decide to impose an even tighter rein on inventory purchases.

• • •

The Pentagon has tightened up one area for awarding military contracts—all in the name of allowing free competition for contracts.

The matter involves letting of ICBM base construction contracts—some \$1-billion in all. The Pentagon, under great pressure from Congress and smaller businesses to open up its contract award procedures, decided to stick to formal advertised bidding on the ICBM bases.

But here's the catch. The Air Force had wanted the Defense Dept. to shut off bidding and allow the service to negotiate privately for the construction jobs. This the department refused to do.

But it accepted a second Air Force proposal that had the same effect. This is to restrict bidding to "selected" companies.

The idea is to adopt a screening program to determine what companies would be available to bid in terms of technical experience, capital resources, and previous military construction work. Brokers would be excluded from bidding.

• • •

An all-out fight is guaranteed against the plan of the Illinois Central and the Southern Pacific to take over the John I. Hay Barge Line.

Competing air, truck, and water carriers are ganging up. They filed briefs with the Interstate Commerce Commission last week vigorously opposing the move.

Their argument: This would be the opening wedge for the much stronger railroads to move into other lines of transportation, upsetting traditional separation of carriers. Both sides meet face to face in oral arguments later.

AUG. 29-
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Industrial Price Outlook: Steady to Firmer

(Continued from page 1) some list price increases. But it will be December or later before a decision is reached on when they might come or whether they will be selective or across-the-board.

• **Paper:** The outlook is for firming paperboard, corrugated boxes, and folding carton prices. But any upward movement will be felt through the drying up of current discounting rather than price advances. Firm tone stems from (1) consumer inventories being used up and (2) an increase in new orders. A business pickup should send paperboard products buyers into the marketplace on a rush order basis.

Fine paper prices may ease, however, because the experts feel production has caught up with demand.

• **Chemical:** An increase in benzene and naphthalene tags is a strong possibility because of tight supply in these coke-oven by-products. Such increases would generate a higher price reaction in derivatives like maleic anhydride (benzene) and phthalic anhydride (naphthalene). Prices for these widely used chemicals look strong for the rest of 1960.

• **Lumber:** An increase in some important lumber products seems imminent—particularly in the Douglas fir area—because of production cutbacks, vacation layoffs, and increased dealer orders. Mill prices have already risen—\$2/thous. bd. ft. for 2x4s—but dealers haven't yet been able to pass this on.

Plywood prices also are likely to firm. The price decline of the past few weeks has been halted by drastic production cutbacks. Even a moderate demand pickup is likely to be translated into higher prices by these profit-squeezed producers.

• **Rubber:** Natural rubber prices have been easing. Since late June they're down 10¢ a lb. or over 20%. But over-all business pickup should end the decline and keep tree rubber quotes around current levels over the next few months.

For synthetic rubber the outlook is little different. The man-made product has cut into natural's market mainly because of its price advantage. And now that natural rubber prices are lower—it could mean some downward pressure on synthetic tags.

• **Rubber products:** The rubber industry just had a 9½¢/hr. wage boost. But offsetting this is the reduction in some raw material costs (recent cuts in natural rubber, nylon, and rayon tire cord). The direction that prices take, however, will depend largely on whether there is an increase in the demand for 1961 cars—and if so, how much of that increase is offset by sales of compact cars, which have a lower per unit use of rubber.

• **Aluminum:** These tags should firm in the coming months. Discounting from published prices has been going on, but increase in business activity should dry up list price shading because (1) there has been some production cutbacks and (2) aluminum inventory paring has been going on all summer.

• **Copper:** If the Congo situation eases, then high copper output is likely to keep prices around their present level, or even slightly lower. But that's a big "if."

• **Tin:** Tin prices have eased over the past few weeks, but this price is also subject to unusual influences. The decisions of the International Tin Agreement pool may be the deciding factor—and they are pretty hard to predict.

• **Packaging:** This group presents a mixed price outlook. Some flexible packaging tags should pass on the savings of the lower polyethylene price. Others—metal cans, conventional paper and glass containers—look to remain stable. But new developments such as laminated paper boxes and coated glass containers will upgrade packaging costs for some firms while providing savings from lower freight charges and spoilage rates.

• **Cement:** Wage increases may bring higher tags in many inland areas when the Jan. 1, 1961 cement postings come out. But for the East Coast, foreign competition should keep cement at current levels.

• **Plumbing supplies:** Prices for fixtures look firm. Excessive discounting has been drying up except for very big jobs.

A lot of additional demand has come from the growing practice of air conditioning large construction units, which is expected to strengthen prices for pumps, valves, and some fittings.

Other items, however, such as steam fittings, drainage fittings, and cast iron waste pipe, are in abundant supply and their tags are likely to remain at current soft levels.

• **Machine tools:** Despite domestic and foreign competition some price boosts may be posted because of tight profit margins.

New design changes that will upgrade many items will help producers pass along boosts. But they'll still be selective with biggest hikes coming in low-profit areas where prices haven't changed in the past 3-4 years.

• **Petroleum products:** Gasoline should go down—though probably not to year-ago levels due to increasing refining operations. But residual fuel looks to go up because:

(1) Inventories are much lower than year-ago levels.

(2) Import quotas should restrict supply and prevent domestic users from taking advantage of the lower Middle East crude petroleum prices.

• **Textiles:** Price outlook is currently shaky. Slow garment maker demand has raised converter inventories and made for some price declines in items like 80 square printcloth, combed broadcloth, and cotton lawn fabrics.

It's forced some mill cutbacks, too. However, mill men expect a pickup in retail clothing sales to correct this situation before winter.

• **Material handling equipment:** Some companies, reporting a swing back to "realistic" pricing see a 3% to 5% boost by year end.

But other leading spokesmen for the industry think otherwise. They say the competitive situation doesn't warrant price increases without cost increases and assert no price increase can be justified without steel increases.

• **Other metal working:** Most suppliers—including producers of stampings and castings—don't plan to post any substantial price changes in the next few months. But it's only because they expect no cost changes. Most admit that if steel went up they would be forced to pass through the increase.

Machinery Firms Temper Forecasts For Autumn but Foresee Rosy 1961

New York—Machinery and equipment makers have scaled down their previous optimistic estimates on bookings for the remainder of the year. But they are more optimistic about new orders for early 1961, according to a new McGraw-Hill quarterly survey on machinery orders.

This forecast provides the first solid clue to what capital goods producers are thinking about the level of new orders next year. The consensus, as reported by the McGraw-Hill survey:

• New machinery orders in the first half of 1961 to run 2% higher than in the first half of this year—but 5% below the second half.

• The second half of 1960 to top year-ago by 11%—though this is somewhat below the forecasts made earlier this year.

• The first quarter of 1961 to top both year-ago and earlier forecasts.

• The second quarter of 1961 to show a rise above the previous quarter, thereby indicating that

the current capital equipment boom has not yet run out of steam.

But not all categories will share equally in the gains. A breakdown by major machinery groups reveals considerable difference in forecasts.

Comparing the second quarter 1961 to the second quarter 1960, builders of metalworking machinery expect a 12% gain. Office machine manufacturers expect a rise of 6% over the same period, while producers of engines and turbines anticipate a 4% rise.

Manufacturers of other industrial machinery—general purpose and special purpose machines—anticipate a slight dip in the level of incoming new business during the coming quarters; but they expect business in the second quarter of next year to rebound to virtually the same level as in the second quarter of this year.

On the other hand, producers of pumps and compressors, and of construction and mining machinery expect business in the future to decline from levels reached in the first half of 1960.

Weekly Production Records

	Latest Week	Week Ago	Year Ago
Steel ingot, thous tons	1,552	1,558*	332
Autos, units	46,865	84,139*	31,848
Trucks, units	15,960	12,449*	14,698
Crude runs, thous bbl, daily aver	8,135	8,335	8,214
Distillate fuel oil, thous bbl	13,097	13,314	13,197
Residual fuel oil, thous bbl	5,626	6,090	6,241
Gasoline, thous bbl	29,467	30,015	29,316
Petroleum refineries operating rate, %	83.1	85.2	84.6
Container board, tons	169,897	158,611	166,560
Boxboard, tons	97,164	97,575	94,657
Paper operating rate, %	90.8	88.7*	96.4
Lumber, thous of board ft	232,189	233,835	240,469
Bituminous coal, daily aver thous tons	1,339	1,298*	1,204
Electric power, million kilowatt hours	14,453	14,622	14,003
Eng const awards, mil \$ Eng News-Rec	406.4	455.1	293.0

*Revised

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C O M P A N Y

Japan Wins Interior Dept. Contract for Turbines

Washington—Japan made its first successful bid for a heavy electrical generating equipment project when Hitachi New York Ltd. won a \$664,860 contract for two 93,500-hp. turbines at Clear Creek power plant near Redding, Calif.

In announcing the award to the Japanese firm, the Interior Dept.'s Bureau of Reclamation also announced contracts to a British firm, English Electric, as well as to two domestic bidders—James Lefel & Co., Springfield, Ohio, and Newport News Shipbuilding & Drydock Co.

English Electric gets a \$832,-830 contract for two 50,000-hp. turbines at Flaming Gorge Dam, Utah; James Lefel, a \$798,550 award for three 50,000-hp. turbines at Flaming Gorge Dam, Utah; and Newport News, a \$1,125,000 contract for two 105,000-hp. turbines at Keswick Creek Power Project, Calif.

Actually, foreign bids were low on all four contracts, even

with the 6% differential. But the bureau's policy of limiting to a single contract any company that is supplying a large piece of machinery for the first time prevented the awards to the foreign firms.

The policy is not intended as a national defense measure, but is based on "good business practice." It was invoked in 1952 and 1953 by Bonneville Power Administration, in a ruling that limited American-Elin (Austria) and English Electric to single contracts for transformers, which

they were then bidding to supply to Reclamation for the first time.

In the present case, neither English Electric nor Hitachi have supplied the bureau with turbines. Although the policy appears to be an obstacle to foreign bidders, the bureau explains that it has done little business with foreign firms, doesn't know their equipment. This would apply as well to unknown U. S. firms, but the bureau points out it has dealt mainly with a handful of domestic firms that produce heavy electrical equipment.

SBA Starts Free Report Service On Research and Development Work

Washington—Smaller manufacturers can now avail themselves free of a regular report service from the government on latest technical research and development advances in their industries.

The service will be provided by the Small Business Administration which will supply abstracts of reports on the hundreds of federally-aided research projects as they become available.

Smaller concerns can choose

from an SBA check list the categories in which they desire information. Abstracts of the government reports will then be mailed automatically as they are issued.

Government-financed research covers a wide range of subjects, with special emphasis on engineering, physics, chemistry, biological sciences, and basic materials. Further information for small business is available at any SBA office.

Du Pont Plans Lab To Aid Customers In Chemical Tests

Wilmington, Del.—Du Pont Co. will build a new \$2-million sales service laboratory here to assist customers and develop new uses for the company's line of industrial chemicals.

Scheduled for completion late next year, the two-story plant will contain physical testing and analytical laboratories, demonstration areas, offices, and service facilities.

Thomas H. McCormack, general sales director, said the facility will permit expansion of the Industrial and Biochemicals Dept. customer service and sales development program, with greater emphasis on existing industrial product lines.

McCormack listed the principal objectives of the laboratory as assisting customers with technical problems connected with use of Du Pont products, opening new markets for existing products, and suggesting and demonstrating new uses for these products.

He said the laboratory will be open for customers to see demonstrations of product applications and for the exchange of technical information on industrial chemicals.

Lack of Orders Curtails Texas Steel Operation

Dallas—The Lone Star Steel Co. curtailed operations at its East Texas plant last week because of lack of orders.

Completely shut down were open hearth furnaces, rolling mill, ore mines, and ore plant. The plant's two electric weld pipe mills are continuing operations, as are the blast furnace and coke ovens, the latter on a reduced basis.

About 2,000 employees have been laid off as a result of the shutdowns. This is the second layoff this year at the steel plant—about 500 employees were dropped from the payroll two months ago.



Three Westinghouse Officials Switch Pleas to Guilty in Price-Fixing Case

Philadelphia—Three Westinghouse Electric Corp. officials reversed themselves last week and entered pleas of guilty to government anti-trust charges involving alleged criminal conspiracies to fix prices and rig bids on power switchgear assemblies.

The three defendants previously had pleaded innocent. The charges were contained in a series of anti-trust indictments that named more than a score of firms and individuals earlier this year.

Two companies—I-T-E Circuit breaker Co. and Federal Pacific Electric Co.—previously also pleaded guilty to charges involving switchgear equipment.

First trial resulting from the 18 grand jury indictments returned by various federal grand juries here is scheduled for Sept. 19, but Westinghouse and General Electric have petitioned for postponement of the case. The court will hear arguments on the motions this week.

P.A. Sinks Water Department in Hydrant Battle

Buffalo—City Purchase Director Joseph R. Stiglmeier has won his battle with the Water Department on how to paint fire hydrants.

Stiglmeier held out for the old-fashioned paint brush over the modern spray can—and saved the city \$3,000.

The Water Department started out to paint more than 5,000 fire plugs using 16-oz. spray cans normally used for touch-up paint work. The department purchased 100 cans at 97¢ each while Stiglmeier was on vacation.

On his return the purchase director found a requisition for 3,000 more cans. When he balked, the Water Department cut the order to 1,000 cans. Stiglmeier still refused to follow through and order the paint.

"It would take about 6,400 cans to do the job, he said, "compared to 400 gallons of paint. That's about \$15.52 a gallon vs. \$3.85 a gallon."

The spray method was suggested by a senior administrative assistant in the Water Department as the "quickest and easiest" method to paint the hydrants.

Stiglmeier admitted it would be faster to use the cans but pointed out it would be much more economical to buy the paint in quantity and brush it on.

An allocation of \$4,500 had been included in the Water Department budget for the paint job. However, Stiglmeier's cost consciousness and refusal to reject the old-fashioned will cut the actual expenditure to \$1,500.

Tacoma Disallows Identical Bids On Lightning Devices

Tacoma, Wash.—Tacoma's Utility Board has rejected three identical bids for lightning arresters.

General Electric Co., Graybar Electric Co., and Westinghouse Electric Corp. each bid \$34,483.50 for lightning arresters required for the Mayfield hydroelectric project.

J. D. Ferguson, city light superintendent, said the lightning arresters are a "catalog item" and identical bids are not unusual on such items, although the companies usually bid on the basis of varying discounts.

In rejecting the proposals, the board voted unanimously that the bids be brought to the attention of the U.S. Attorney General, who is investigating price-fixing among U.S. electrical concerns.

Leading Steel Producers Make New Reduction In Electrical Conduit Price

Pittsburgh—Leading steel producers have announced a 5% price cut on hot dipped galvanized rigid electrical conduit, included black conduit.

The latest price reduction follows a 3% reduction last March, and is retroactive to August 1 for jobbers, but not consumers. It applies to all size conduit from $\frac{1}{2}$ in. to 6 in. The new price for $\frac{1}{2}$ in. is 13.38¢ per lb., compared with the previous price of 14.08¢.

This action appears to be a continuation of the trend towards selective reductions in steel—the result of domestic and foreign competition as well as competition from substitute materials.

Price reductions in the past several months have hit such products as welded stainless tubing, line pipe, merchant wire products, baling wire, and limited regional cuts in nails and reinforcing bars.

Merck Cuts Silicon Tags

Rahway, N.J.—Prices of high-purity silicon, a material of growing importance in the electronics industry, were reduced 6% to 28% last week by Merck & Co.

The sharpest cut was a drop from \$1.55 to \$1.39 a gram for one grade of silicon. High-purity silicon finds its main use in semiconductors.

Merck said the price cuts were made possible by lower production costs stemming from a 50% expansion of its Danville, Pa. plant.

The original Mr. Gross

If it's a new idea in shipping containers, the man they call
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Remember the famous "V-Boxes" in World War II? They were developed when Ted was President of Container Laboratories. A task force under his direction worked closely with a special committee of the Fibre Box Association to produce the original wet-strength corrugated box. This development enabled military supplies to withstand the wet conditions of amphibious landings.

The widespread use today of lightweight, low-cost produce boxes also owes much to Ted's ingenuity. As Chairman of the Citrus Container Institute, he pioneered in developing corrugated boxes for shipping citrus fruits. The knowledge gained in this area has led to the widespread use of corrugated for shipping a variety of fresh produce—safely and economically.

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adopted as the standard for measuring the inside dimensions of a corrugated container. You guessed it. Another Ted Gross "first."

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The Eastern Box Company, Baltimore, Maryland.

Foreign News in Brief

Japan Cuts Transistor Prices

Tokyo—Lack of demand and overproduction have hammered transistor prices down 20% to 36% here, to the point where manufacturers are now selling sets of six transistors at 83¢.

Nevertheless, transistor makers are pushing forward with expansion plans, despite a mounting production rate and lack of hope for increased export sales because of Japan's self-imposed export quotas. Production is nearing 13-million units monthly,

or more than double last year's rate.

Railroad Buys Trucker

North Bay, Ont.—Ontario Northland Railway disclosed it has purchased one of Northern Ontario's largest trucking firms, the Star Transfer Co., Ltd., of Timmins.

Col. C. E. Reynolds, chairman of the Ontario Northland Transportation Commission, which operates the publicly owned rail-

way, said the road has, in fact, been operating Star Transfer for over a month and is conducting negotiations with other highway transport firms in the north.

New Redifon System

Crawley, England—Redifon Ltd. has come up with a new data monitoring system which it claims is 30% cheaper than comparable equipment on the market.

The new system uses telephone-type stepping switches for

scanning and provides alternative outputs from in-line indicators, simple electric print-out machine, or a CRT display. Prices, based on standard multiples of 48 channels, run at \$67/channel.

Five-Speed Gearbox

London—British Motor Corp. has announced that a new five-speed gearbox will be available as an option on all Austin and Morris trucks in addition to standard four-speed transmissions.

The new transmissions, available for the first time last week, have ratios of 7.58:1, first gear;

4.38:1, second; 2.39:1, third; 1.47:1, fourth; 1:1, fifth; and 7.51:1 in reverse.

Rubber Joints for Pipes

The Hague—Vredestein International, a leading rubber producer here, has started production of new multi-purpose high and low-pressure rubber expansion joints for pipelines.

The company says the rubber joints can absorb all pipeline expansion and shrinkage due to temperature changes and settling soil as well as provide the line with electrical insulation.

German Steel

Bonn—German rolling mills turned out 1.923-million tons of steel products last month, an increase of 193,000 tons over June.

The July figure brings total rolling mill production for 1960 up to 13.016-million tons, compared with 10.516-million tons for the same seven-month period of 1959.

Copper Production Plan

Salisbury, Southern Rhodesia—Consulting engineers are examining a scheme to raise output at Nchanga Consolidated Copper Mines Ltd., in Northern Rhodesia, by 15,000 tons/year—without boosting the mining rate.

Under the plan, \$5.6-million to \$8.4-million would be spent on improvements and extensions of the Nchanga plant. Engineers believe the action "might result in a marked improvement in the efficiency of extraction." Nchanga now produces close to 180,000 tons of copper a year.

Iron Ore Deposits

Johannesburg—The British High Commission has started negotiating with Japanese businessmen and representatives of Anglo-American Corp., of London, over opening up of the rich iron ore deposits in Bomvu Ridge, in Swaziland, east of the Transvaal.

At the same time, the British are trying to set up a railway link between Bomvu Ridge, whose iron ore is estimated at over 31-million tons, with an average grade of 64%, and the Portuguese East African port of Lourenco Marques. The double project will involve an estimated \$33.6-million investment.

Aluminum Plant in India

New Delhi—The Indian government has granted a license to construct a new aluminum fabricating plant in Uttar Pradesh to Hindustan Aluminum Corp., Ltd., a joint venture of Kaiser Aluminum and Chemical Corp., of San Francisco, and Birla, of India.

Details of the plant were not announced, but it is understood the facility will produce 15,000 metric tons of rolled, drawn, and extruded products annually. The new factory will supplement Hindustan's \$30-million primary aluminum plant, now under construction in Uttar Pradesh, which will produce 20,000 tons/year.



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This Week's

Foreign Perspective

AUGUST 29-SEPTEMBER 4

London—Short of a new major international crisis, Britishers anticipate only moderate firming of commodity prices during the next few months. While world consumption has been rising, production usually has more than kept pace; and in decisive markets such as the United States and Britain, the industrial outlook is not so glamorous as it seemed earlier this year.

A wide range of commodities has been falling pretty steadily in price on the London markets over the past three months. All kinds of materials are involved—rubber, lead, wool, and cotton.

• Behind the continuing slide in rubber prices has been the widespread prediction that the price was squeezed too high by technical factors earlier in the year. A belief also is growing that year-end surpluses of new rubber will be higher than forecast. The impact of Soviet Russia's possible withdrawal from open market buying also is a factor. Dealers now look for natural rubber prices to settle, but at lower levels than during the first half. But on the other hand, they are not overlooking the potential effect of gradual diminishing of government stockpiles and the possibility that the Communists will start buying again.

• Tin also has been costing less, under downward pressure from uncertainty among U.S. buyers about the economic outlook, plus recent British anxiety on auto exports. Supplies from producer companies also are easier now. But with tin consumption and output now more or less in balance, it doesn't take much to push tin prices up again.

• Copper prices could be heading for a sharp fall, according to some dealers. Doubts about the future of the Congo and recent British labor troubles have tended to keep prices firm, at least temporarily, in Britain, but world supplies of the metal still remain good.

Summing up: Wherever you look, commodity prices are extremely sensitive. Price positions generally are much weaker now than at the beginning of the summer but there still remains strong arguments against anticipating a continued slide across the board.

• • •
New York—European Common Market countries are standardizing their measuring and engineering specifications systems. *Product Engineering*, a McGraw-Hill publication, reports this week that when these countries complete development of simple, mass production designs for their new mass market, they will present the most serious challenge in history to U.S. supremacy in markets throughout the world.

The McGraw-Hill publication sees the design threat as possibly even more important to the U.S. than the immediate problem of loss of sales resulting

from rising tariffs in the six common market nations. *Product Engineering* came to this conclusion after interviewing 100 technical directors at 50 companies in six countries. Its report points out that governments, industries, and companies are rapidly working out research and development programs to meet the competition between themselves. The result: a radical change in traditional European custom designs in the direction of more standardized, simplified, mass production designs.

• • •
Toronto, Ont.—Major Canadian tire makers have just announced a price increase—\$1—and they blamed competition as one of the reasons for it.

The apparent paradox is explained this way. Japanese tire imports, which have made big inroads on the Canadian West Coast and now are appearing in the Montreal and Toronto areas, sparked a series of price reductions. This brought Canadian tire makers down to the point where they were getting very little profit on their sales.

Thus, according to spokesmen for the principal Canadian tire manufacturers, the prospect was either to operate at a loss or raise prices to keep alive. The manufacturers pointed out, however, that the increases were the first after a series of three price reductions in the past three years and they claim that a first line tire still sells today for less than it did three years ago.

• • •
Melbourne—Australian mineral sands producers are running into difficulties in their efforts to restrict output and increase prices. They are being blocked by the necessity of allocating markets which must be designated before output is reduced to any significant degree.

Australian authorities, meanwhile, are reported to be opposing any action either to subsidize the industry or to help it achieve an artificially high price.

• • •
Tokyo—A group of top Japanese machine tool builders will be in the United States next week to improve and expand their ties with U.S. tool makers. Relations between Japanese and American machine tool firms have been strained frequently in the past because of the Japanese industry's protectionism and American accusations that the Japanese, in turn, jump patterns and copy products of U.S. firms.

But now the Japanese are coming to the United States with apparent intentions to make peace. In the first place Japanese industry is anxious to import additional quantities of U.S. made machine tools. Japanese tool makers are more than a year behind in their orders because of their country's current boom in metalworking.

Under pressure from all sides, including international monetary agencies with whom the Japanese are dickering for loans, the Japanese hope to reach technical licensing agreements and perhaps set up joint manufacturing vendors in Japan with American manufacturers.

First stop on the Japanese tour of the U.S. will be the machine tool exhibition which opens Sept. 6 in Chicago.

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P/W MANAGEMENT MEMOS

A collection of timely tips, quotations, and inside slants on management and industrial developments, along with a run-down of events and trends of use to the purchasing agent.

Business and Politics

Businessmen who are reluctant to get their feet wet in politics because they're worried about public opinion need worry no longer. A majority of the voters favor the idea of businessmen in government, even though they are aware that there may be a conflict of interests, according to an Opinion Research survey.

Some 70% of the people polled in the survey think that businessmen would do better in public office than labor leaders; 66% that they would work for the welfare of the average man; and 67% that they would give labor a fair deal.

In spite of this favorable public image of the businessmen, the report shows that he's about as apathetic about political activity as any other group of American citizens. Only about 5% of the businessmen surveyed reported that they are party regulars who ring doorbells or even contribute money during campaigns.

However, about half said they wrote their congressmen on public issues and an equal number said they were in favor of their employees doing the same.

Wave of the Future

The business community, undoubtedly inspired by all the denunciations of conformity and overadjustment, is taking a more critical look at the Organization Man, says Prof. George Odiorne, of the University of Michigan.

Business, says the professor, may be in for a revival of the doctrine of rugged individualism, which he calls Maverickism—particularly if the men who do the hiring are attuned to pick up the faint but clear messages now emanating from the Bosses' office.

The big danger, though, the professor warns, is that a new breed of conformists will emerge under the new dispensation—the Organization Man masquerading as a rugged individual.

To avoid impressing a new mold of conformity on middle management under a different guise, Odiorne suggests it will be necessary for the prophets of Maverickism to strike a proper balance between the two extremes of adaptation and independent thinking. Obviously, as he points out, a firm staffed mostly by Mavericks would end up quickly in receivership. Conversely, a company dominated by Organization Men would be completely lacking in daring and imagination.

What management has to do, in other words,

is to set up limits—to determine how many Mavericks it can fit into an organization without wrecking it and where they can be strategically placed to do the most good.

The Salesman's Best Friend

The salesman's best selling gambit is not the double martini he buys a prospect at lunch, but the catalogs and technical literature he leaves with him.

That's one of the findings of a McGraw-Hill Research Dept. study, which reports that 95% of the 1,300 salesmen surveyed believe that company literature is their most effective selling weapon. Trade and business paper advertising rated second, with a score of 70%, and direct mail and trade shows were tied for third, with trade shows moving up fast.

Industrial marketers like shows because they provide a favorable atmosphere for the serious shopper. Direct mail doesn't do so well, in the opinion of most salesmen, because busy managers are apt to take a dim view of advertising material received through the mails.

In a related survey, the McGraw-Hill Research Dept. found that trade magazines rate as the No. 1 source of new ideas for products with top management. Operating management, however, rated salesmen slightly ahead of magazines as a prime source of product ideas, with 29.2% and 27.6% respectively. Management assistants said that salesmen were the sources for most new ideas.

On the Record

Unless you were born with a good, hearty sound track—a prime business asset—chances are you would benefit from a short course by a good voice coach.

That doesn't mean, however, that you have to go the expense of hiring a voice trainer on your own. There's a simpler way of getting such training—and that's from records. Columbia Records has just issued one called "Speak Well Off the Record." It's by Paul Mills, a sales training expert, who last year conducted a conference on voice training sponsored by the Purchasing Agents Assn. of New Jersey.

The record is available from dealers, together with an instruction manual, or from Sales Power Co., 17 E. 48 St., New York City. Price \$3.95. If you order from the New York address, Mill also will send you a free copy of his booklet, "Ten Ways to Put Sell into Your Voice."

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WHAT VALUE ANALYSIS CAN DO FOR YOU



BEFORE ANALYSIS: Accounting machine crank handle made as 8-piece assembly, including a steel forging, 2 screw machine parts, a die casting, and 3 taper pins.



AFTER ANALYSIS: Handle was designed as a single shell-molded grey iron casting. All assembly and machining was eliminated and appearance improved.

Source: Bennett-Ireland, Inc., Norwich, N. Y.

TECHNIQUE:

Consider single casting to replace complicated assemblies.

SAVINGS:

Part cost cut 78%

PURCHASING WEEK ASKS . . .

How would you handle the problem of dealing with people who formerly worked with you and are now representatives of your suppliers?

Question asked by: O. B. Cummings, Purchasing Agent
Moock Electric Supply Co., Akron



P. J. Davis, purchasing agent, Tennessee Valley Authority, Chattanooga, Tenn.:

"I speak personally and not for TVA. We P.A.'s in government operate justifiably in a 'goldfish bowl,' and it is, therefore, our desire to give this problem serious thought. Approval by the director of purchases, or equivalent authority, of purchases from former employees for a limited time not to exceed one year is one action that can be taken which will in no way be unfair to any of the parties."



V. H. Pooler, Jr., purchasing agent, machinery department, Carrier Air Conditioning Co., Syracuse, N. Y.:

"Treat a former fellow employee with the same respect and friendliness you would extend to any company visitor. A frank friendly discussion of the situation should be held with him so that a sound business atmosphere exists. I'd tell him he would get every courtesy and opportunity he deserves but he should expect no special favors. The golden rule is often cited here. If you think of yourself as the new salesman I think your course is clear—treat him as you would expect to be treated, no better and no worse."



A. W. Fox, manager of purchases, Puget Sound Power & Light Co., Seattle:

"Such instances are infrequent and have rarely if ever involved a purchasing department employee. Other departments have contributed nominally to supplier sales organization; these involved no problems. The handling of these people is simply a matter of treatment identical to other representatives. If such a salesman is intelligent, he will not attempt to take advantage of his inside knowledge of company affairs. Under our company's principles and standards, a former company employee could expect fair and impartial consideration."



John Vanderveen, purchasing agent, Sackner Products Inc. (braided cord, etc.), Grand Rapids, Mich.:

"We naturally would extend every courtesy to this new supplier-acquaintance. We would explain to him our purchasing policy on acquisition of materials and supplies and describe generally our needs as we know them. The supplier would then be given the opportunity to present his product with an eye to the possibility of an improved price, product, application, or service. If none of these qualifications can be met, the supplier would be told so and no transaction would result."



R. H. Copeland, purchasing agent, Loma Industries, Inc. (molded plastics), Fort Worth, Tex.:

"We have had very few problems of this particular nature. However, these people are handled the same as any other vendor representative who calls upon us. We usually find that they are at an advantage due to familiarity with our products and sometimes can, therefore, give excellent service. This, of course, in no way affects price or competition."



J. H. Seitz, buyer, Racine Hydraulics & Machinery, Inc., Racine, Wis.:

"People who formerly worked with us are informed that purchases are made on the basis of competitive quotations involving quality, service, price, and delivery. They certainly are given every opportunity to demonstrate their capabilities in these requirements; however, it is pointed out that it is the purchasing department's policy, if all other qualifications are equal, to continue doing business with vendors who have in the past done outstanding work for us from a service standpoint."



U. S. Violette, director of purchases & product services, Iona Mfg. Co. (mixers, blenders, etc.), Manchester, Conn.:

"We would be courteous but as far as I am concerned any previous employee would get no special favors or benefits. Having had contact with us, he probably would know a good deal more about internal workings—placing him in an advantageous position to pry into corners of thinking that a salesman coming in off the road would not be acquainted with. However, each business transaction would be decided without bias solely on a merit standpoint—quality, price, delivery, and service."

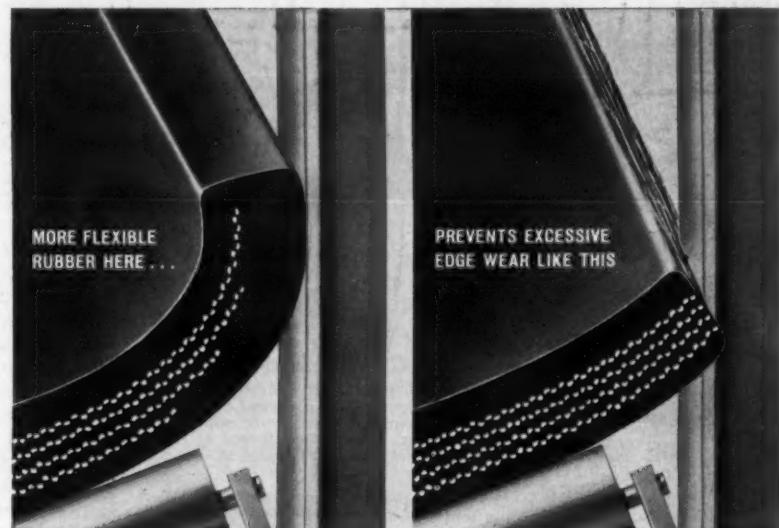


Norvel Martens, staff purchasing agent, Falstaff Brewing Corp., St. Louis, Mo.:

"Our suppliers receive orders based on their service, quality, and price. If a former fellow employee became a representative of one of our suppliers, it would be necessary that he be considered strictly on the basis of his contribution to these three factors. Should the factors upon which we base our purchasing decision improve, naturally the supplier's volume would be increased."



"COLEDGE" BELTING REDUCES EDGE WEAR, ADDS MILES OF USE!



Improper training can ruin a conveyor belt faster than any other abuse. Riding up and rubbing against a frame member soon wears away the stiff edge of conventional belting and exposes the carcass plies to moisture, mildew, dirt and eventual ply separation. "Coledge" belt construction was developed by Thermoid Division—to overcome this weakness and extend belt life.

"Coledge" construction puts plenty of extra rubber on the edges where it counts . . . plies are

stepped back to make a more flexible edge that rides with the punches when misalignment occurs. This "Coledge" construction is available in any standard type belt.

So, if you have an edge-wear problem with conveyor belts, specify "Coledge" construction. See your Thermoid Division distributor for technical data or assistance or write, Thermoid Division, H. K. Porter Company, Inc., 200 Whitehead Road, Trenton 6, New Jersey.

THERMOID **PORTER** **DIVISION**
H. K. PORTER COMPANY, INC.

PORTR SAVES INDUSTRY with steel, rubber and friction products, asbestos textiles, high voltage electrical equipment, electrical wire and cable, wiring systems, motors, fans, blowers, specialty alloys, paints, refractories, tools, forgings and pipe fittings, roll formings and stampings, wire rope and strand.

Triple-Header Machine Tool Exposition to Feature Automation

(Continued from page 1) erating under power—most of them new and many of them based on all-new machining concepts.

This triple display of machine power will provide an answer to metalworking's burning question: "How can we get production costs down to beat foreign competition?"

Tape Controlled Machines

The answer is already evident from details that have already been leaked out by U.S. builders. For one thing, more than 100 of the machine tools on display will feature some form of tape control—a sure sign that this development, little more than an interesting novelty at the 1955 exhibits, is the coming thing in metalworking.

The big spotlight will be on the Machine Tool Exposition—1960, the colossus of all U.S. trade shows. The Machine Tool Exposition has grown so big in recent years that it has twice overflowed the giant International Amphitheatre, making it necessary to build additional space for the last show in 1955—and again this year.

The second exhibit, the Production Engineering Show, is a direct offshoot of this fast expansion of the Exposition, which crowded out displays of controls and other machine tool accessories in 1955. The same setup will be followed this year at the Navy Pier, with the show running concurrently with the Machine Tool Exposition for the second time.

The third show also stems (in-

directly) from the Machine Tool Exhibition. Exhibitors barred from participating in the main event (which is restricted to members of the National Machine Tool Builders Assn.) will showcase their wares at the Second International Machinery Show at the Coliseum.

Exhibitors at the Coliseum event will be mostly foreign firms, with a sprinkling of U.S. representatives for overseas outfits and a number of American nonmembers of NMTBA thrown in.

A Look at Foreign Goods

Many of the exhibits at the Coliseum Show will feature machine tools shown earlier this summer at Britain's huge Olympia Machine Tool Exposition, and some that will be shown later this year in the French and Italian Expositions. It will afford an interesting look at latest foreign machine tools, as opposed to new American developments at the International Amphitheatre.

The emphasis of all three shows will be on meeting customer demands for machines that will help get production costs down. Many of the machines on display at the Exposition, for example, are based on concepts that, when fully developed, will allow semi-skilled operators to handle what is now considered highly advanced work.

Other new concepts that will be incorporated into the machines on display at the Amphitheatre: electrical discharge machining, impact extruding, shear forming, in-process gaging, stretch forming, electron beam machining and welding, ultra-high-speed cutting, and chipless machining.

'Building Block' Machines

Sure to attract a great deal of attention are the new "building block" machines, created in response to the demand for machine tools of standard heights with interchangeable components.

The same attention to customer needs will be in evidence in the machine tool controls and accessories in display at the Navy Pier. Some \$10-million of equipment will be shown by upwards of 300 exhibitors—and practically all of it will be geared to automation.

The 1960 Show, in addition to



THE SCENE: International Amphitheatre Chicago, where 130 NMTBA members will exhibit on 12 acres of floor space in 5 adjoining halls.

control equipment and machine components, will feature a wide variety of interplant communications equipment; inspection, gaging, and testing devices; materials handling and safety equipment; as well as special production equipment—exclusive of machine tools.

The 'Rump' Show

The Second International Machinery Show at the Coliseum just south of Chicago's Loop occupies the same somewhat tenuous position as the side show that sets up alongside the main circus grounds without the circus's approval—hoping to attract crowds away from the main event.

Nevertheless, despite its discreditation by sponsors of the other two shows (they refer to it disparagingly as "that rump show"), the International Machinery Show will draw its share of the 125,000 expected visitors.

The big attraction will be the comparatively low-priced foreign machine tools, which should prove a powerful lure for the small-to-medium shops. Here the accent is on economy, durability, and steady performance.

Secret Centerpiece

Word is out that the centerpiece at the Coliseum will be an immense piece of equipment which was brought in by Japan's Mitsubishi.

It's said to be 60 ft. long and 30 ft. wide, but since it's still under wraps, no one quite knows what it is.

It has been a long five years since America's machine tool builders last showcased their newest developments under one

roof, and it's been a long five years since Chicago has become for a fortnight the machine tool capital of the world.

But it has been five years of the most concentrated effort the machine tool industry here and abroad has ever put into research and development. It has been a simple matter of necessity—metalworking has had to face up to the job of machining materials to meet the complicated demands of the Space Age.

How well the industry has faced up to the challenge will be evident next Tuesday, when the curtain rings up on the greatest industrial show on earth.

New Firm Enters Specialty Plating Equipment Market

New York—Selectron, Ltd., a newly formed company, has announced it will produce and market a new line of specialty plating equipment for a wide range of applications.

The new line, called Selectron, permits localized plating of selected areas, without extensive masking or stopping off, or large tanks of expensive electrolytes. The equipment, which includes power packs, styluses, and electrolytes, is designed for controlled deposits of many metals and alloys on almost any conductive base material.

Selectron also is marketing a wide variety of tools, as well as new solutions which, the company claims, offer a faster rate of metal deposition "than formerly possible."

A company spokesman indicated the firm will concentrate its initial marketing activities in the electronics, aviation and missile, rotogravure, machine repair, jewelry, and marine industries.

Here's Your Rundown on the Chicago Shows

Show, Location, and Dates

Machine Tool Exposition—1960 (International Amphitheatre 10 am—5:30 pm Sept. 6-16 (except Sundays)

Production Engineering Show (Navy Pier) 1-10 pm Sept. 6-16

2nd International Coliseum Machinery Show (Chicago Coliseum) 1-10 pm Sept. 7-15

What's On Exhibit?

130 exhibitor members of the NMTBA showing the latest in American-made machine tools.

300 exhibitors demonstrating latest in control equipment, components, test gear, supplies, etc.

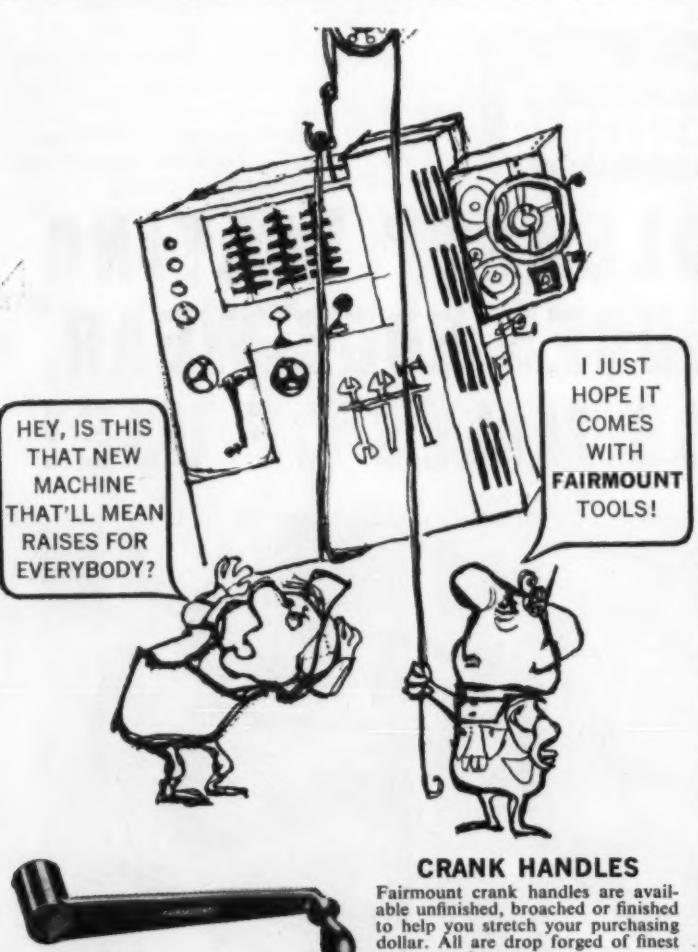
70 exhibitors—mostly foreign with a few American non-NMTBA members thrown in—showing latest in foreign tools.

Registration: A badge from either the Machine Tool Exposition or the Production Engineering Show will admit visitors to all three exhibits. Special chartered buses will shuttle between the Amphitheatre and Navy Pier and downtown hotels.

Q-T Tool Co. Occupies New Manufacturing Plant

Bedford, Ind.—A new manufacturing plant to produce standard and special cutting tools has been completed and occupied by Q-T Tool Co. here.

The 10,000 sq. ft. one-story plant has been designed to provide fast service to Midwestern industrial centers. Included in the facilities is a special tool department equipped to manufacture milling cutters, end mills and counterbores. A tool design and development service is also housed in the new Q-T Tool Co. plant.



CHECK NUT WRENCHES

Single or double end 15° angle for check, jam, lock nuts, etc. Fairmount wrenches may be as thin as $\frac{1}{8}$ inch. From $\frac{1}{4}$ " to $1\frac{1}{2}$ " openings. Let us quote on your special jobs.



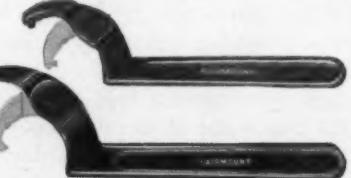
ADJUSTABLE HOOK SPANNERS

Just two of a complete line of Fairmount spanners, adjustable hooks with or without round pins, are ideal for spindle bearings or for adjusting collars and slotted rings on machine tools.



ENGINEERS' WRENCHES

Drop forged from selected high grade carbon steel, these wrenches are available with single or double end. Baked black enamel finish with bright polished heads. Special bends or openings made to your specifications.



SET SCREW WRENCHES

Dropped forged from high grade carbon steel, set screw wrenches look and feel like the quality you expect from Fairmount.

Whether you're looking for a stock item or a complex special for a new kind of machine tool, you're sure to find satisfaction when you specify Fairmount. And supplying Fairmount service tools with your machines is another way to indicate the care you devote to your machines. Send for our catalog #600 for complete line.

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Cleveland 6, Ohio



Chicago Nets Immediate Savings By Term Supply Contract System

Chicago—The first use of a term supply contract system for automotive replacement parts is expected to save the City of Chicago more than \$170,000 in the coming year.

City Purchasing Agent John F. Ward, who recently awarded 34 auto parts contracts totaling \$450,000, says the new system is expected to show an immediate dollar saving of \$70,000 on the price of parts alone.

Savings totaling at least another \$100,000 are expected in the reduction of inventories, paper work and down time.

Buying automotive replacement parts is a complicated job because the city maintains more than 2,000 vehicles of different makes and models. In addition city policy requires competitive bids on all items under \$2,500 if practical, and advertised bids for amounts over \$2,500.

Ward was looking for a system which would do three things:

- Maintain policy.
- Eliminate the need for heavy inventories.
- Cut time between need for part and delivery.

A 21-month system research study by purchasing specialists came up with this solution:

Purchasing would advertise for all vehicle replacement parts and repair services at one time, asking for bids based on manufacturers' catalogs. The system would require bidders to offer a discount against the published prices. Contracts would run for six months with a six-month extension option on the part of the city.

But before this system could be put into effect, Ward and his purchasing team had to assemble a vast collection of facts on auto requirements. They had to get some idea of the amounts and types of parts used over a given period of time.

One of the keys to the new program was the classification of all required materials into 34 automotive components, such as engines, chassis, and others. These classifications acted as guides to make it easier for vendors to bid. A distributor handling only radiator parts, for example, was able to save considerable time in bid calculation because radiators were lumped together at the government invitation to bid.

Biggest advantage of the program, however, was getting distributors to release manufacturer's catalogs to the Chicago Purchasing Department.

Chicago Purchasing Department estimated savings under the

Niagara Power Price Set

Buffalo, N.Y.—The State Power Authority says it has arrived at a "reasonable" preliminary charge for power from the new Niagara project.

The basic rate for power from the project was set several months ago, but the final charge had to await determination of transmission costs.

The authority refused to disclose the amount of the preliminary charge pending public hearings, approval by the governor, and signing of contracts with companies concerned.

Wisconsin Sets Study to Save State's Industries

Fond Du Lac, Wis.—Wisconsin's business leaders have joined together to conduct a "management audit" of this state's business climate as part of a drive to promote industrial growth.

The "Save Our State" program comes on top of an exodus by such key companies as Simmons Co., of Kenosha, and Electric Auto-Lite of La Crosse. It is being sparked by a 21-page questionnaire entitled "Can You Grow Here?" sent out to 2,000 Wisconsin manufacturers.

Aimed at evaluating state

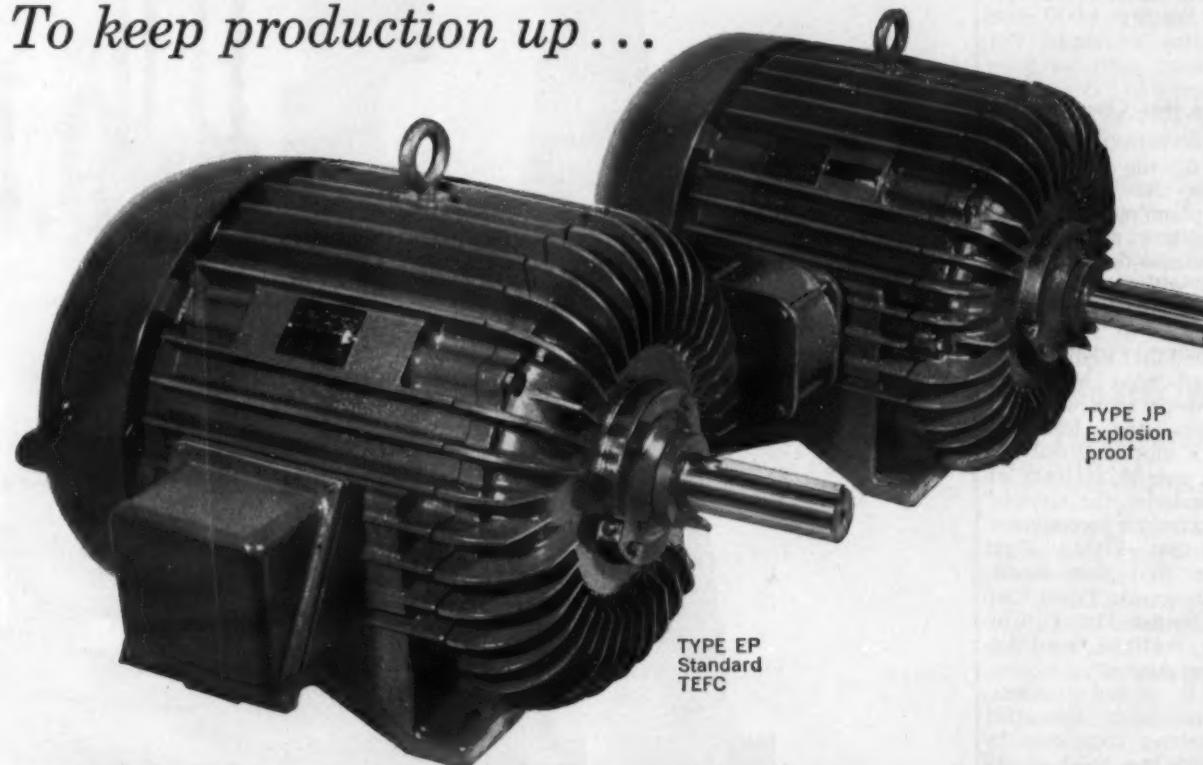
conditions that may be impeding industrial growth, the "SOS" program is backed by the Employers Association of Milwaukee, Kenosha Manufacturers Association, Associated Industries of Oshkosh, Northeast Wisconsin Industrial Association, and the Manufacturers Assn. of Racine.

"Our groups have been concerned for some time that we haven't achieved the industrial growth in Wisconsin that we should have made," declared C. F. Van Pelt, SOS chairman, and president of Fred Rueping

Leather Co., of Fond Du Lac. "The difference between a company that is outstandingly successful and one which just hangs on is probably not more than 5% of earnings before taxes," the survey states.

In order to help Wisconsin's companies determine what these handicaps are, the questionnaire will attempt to evaluate local and state government taxation policies, utility services and facilities, local manpower, local educational and health conditions and company expansion plans.

To keep production up...



TYPE JP
Explosion
proof

TYPE EP
Standard
TEFC

**PICK
FROM
THIS
PROTECTED
PAIR...**

Here's a power-packed pair of Wagner® totally-enclosed fan-cooled motors—Type EP, standard, protected against damage from dust, abrasive, fumes, steel chips or filings; and Type JP, explosion-proof, for safe use in specified hazardous locations.

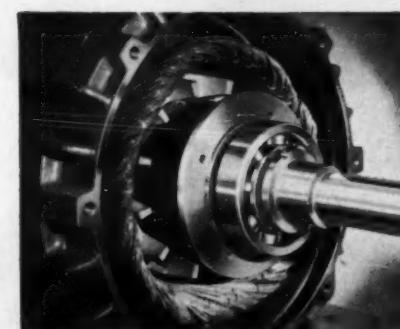
They'll keep your production rates up, delivering full rated horsepower under the toughest conditions...staying on the job with dependable, continuous service that means peak output. They're the perfect pick, for individual machines or for automated lines.

In the design illustrated, these motors are built in ratings through 100 hp in NEMA frame sizes 182-445U. Let your Wagner Sales Engineer show you how this protected pair (or larger Wagner enclosed motors through 500 hp) gets the job done. Call him, or write us for Bulletin MU-224.

Wagner Electric Corporation

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WM60-19



HEAVY-DUTY BALL BEARINGS... The ball bearings used in these motors are of the highest quality, with more than ample capacity to provide long, troublefree service under heavy loads.



BEARINGS CAN BE RELUBRICATED... Factory lubrication will last for many years under normal service, but openings are provided to permit relubrication that adds years to motor life under severe conditions.



SECURELY SEALED FOR LOW MAINTENANCE... Both ends of these motors have running shaft seals to keep the bearings clean. Bearing housings are effectively sealed to prevent escape of grease.

CAB Warms Up Toward Proposals To Reduce Jet-Age Air Freight Rates

Washington—The Civil Aeronautics Board has hinted broadly that it thinks the time has come for air freight rates to be reduced.

It has ordered an inquiry to determine whether the minimum rate structure it established 12 years ago should be modified or junked altogether. In so doing, the board said that existing rates actually may have retarded development of air freight service in this country.

The CAB first set minimum rates in 1948 to combat cut-throat competition that then threatened to undermine air cargo hauling altogether. In 1953, it raised the minimums by 25% to their present level of 20¢ per ton-mile for the first 1,000 miles and 16½¢ for additional ton-miles.

Climate Has Changed

In the intervening years, the board noted, the competitive situation has changed, and air carriers are planning to introduce next year a new all-cargo jet-powered plane—the Canadair CL-44—that will significantly increase the efficiency of air freight operations.

It also noted that Flying Tiger, Inc., a big all-cargo carrier, has called for lower rates and that Slick Airways, Inc., has petitioned for "a more rational rate structure in line with costs incurred in rendering the service."

A CAB examiner recently recommended that Flying Tiger become the first trans-Pacific cargo carrier, serving Japan from New York, Boston, Detroit, Chicago, Seattle, Portland, San Francisco, and Los Angeles.

The CAB asked airlines, shippers, and other interested parties to submit comments by Oct. 14 on what they think should be done about minimum rates.

Drastic Rate Cuts Seen

Frank B. Lynott, executive vice president of Flying Tiger, told the Air Freight Cartage Conference in Chicago in mid-August that with the introduction of the CL-44 reduced air freight rates would be possible because of the lower operating cost of the plane. He estimated that as a result of the economical turbine-operated engine and greater payload capacity and speed of the CL-44 the direct cost of operating the plane would be 4¢ a ton-mile, compared with 9¢ a ton-mile for his line's current fleet of super constellations. Slick and Seaboard & Western also have CL-44's on order.

Emery F. Johnson, president Air Cargo, Inc., and sponsor of the Chicago conference believes the new all-cargo aircraft should make possible shipping rates as low as 10¢ to 12¢ a ton-mile. He says that since planes haul freight as the crow flies, these rates would compare favorably with those of 7¢ and 8¢ a ton-mile charged by surface carriers.

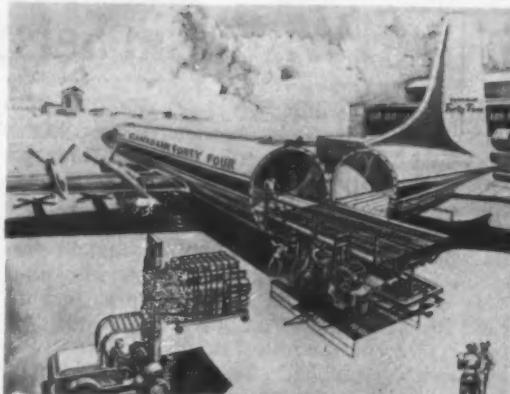
Air freight's greatest attractiveness is the time-saving element it provides. If used regularly, it also makes possible a significant reduction in inventories.

This is the "total cost" philosophy currently being pushed by the airlines, which are in the initial stages of a missionary effort aimed at converting P.A.'s

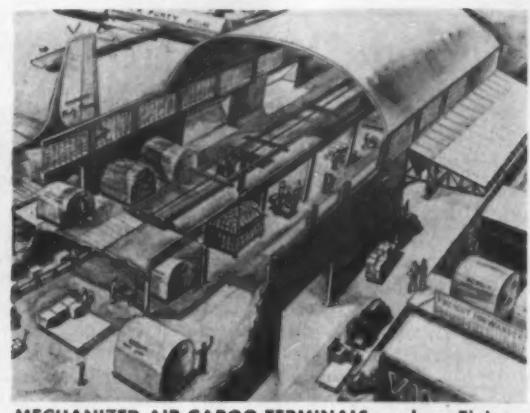
and traffic executives to air freight (see PW, Aug. 8, '60, p. 1).

Under the total cost philosophy, the airlines urge traffic managers to reckon their freight charges, not just by the tariff alone but by adding in warehousing and inventory charges. Long-range savings resulting from air freight, the cargo lines say, include:

- Elimination of warehouses.
- Reduction of inventory costs because of speed of delivery.
- Greater product mobility.



SWING-TAIL CANADAIR CL-44: Flying Tiger, Slick Airways, and Seaboard & Western are banking on this turboprop freight-liner, together with . . .



MECHANIZED AIR CARGO TERMINALS, such as Flying Tiger is building in Chicago, to speed deliveries, make rates competitive with other transportation.

Now...from

Sheet by

COILED AND FLAT SHEET

Non-heat-treatable alloys:
1100, 3003, 3004, 5005, 5050,
5052, 5357, 5457, 5557

Widths: to 48 inches
Gauges: 0.006 to 0.125 inches

Oklahoma Truckers Ask Rate Hike To Offset Higher Operating Costs

Oklahoma City—Oklahoma's motor freight common carriers have asked the state corporation commission for a 6% increase in rates to offset rising costs.

The petition was made by the common carrier division of the Associated Motor Carriers of Oklahoma through its agent, J. D. Huggett, Dallas.

Involved in the rate request are all Class A regular route carriers in intrastate shipments. The filing called for no increases in mini-

mum rates where this minimum is under \$2.

Last month, the carriers were granted a \$2.10 minimum and Earl Curb, assistant general counsel for the commission, said that in some instances minimums were left below the \$2 mark.

Huggett, in his petition, said a need for more than a 6% increase will be shown by the carriers but the increase sought represents what they feel should be authorized at this time.

Kaiser Sets Up Refractory Advisory Service

Oakland, Calif.—A new service, designed to help steel companies select refractories for maximum economy and best performance has been inaugurated by the Kaiser Refractories and Chemicals Div. of Kaiser Aluminum and Chemical Corp.

The co-ordinated service, called the Application Consulting Team or ACT, is composed of three major groups of specialists within Kaiser refractories:

- The industrial engineering group, consisting of specialists qualified to evaluate refractory

efficiency and to serve as liaison between the customer and the other two groups.

- The application development group, consisting of field service technicians who can assist customers in planning refractory installations and providing, where needed, detailed drawings.

- The refractory research group, consisting of the scientists and technicians who conduct fundamental and evaluation research at the Kaiser Refractories' Research Laboratories in Milpitas, Calif., and Mexico, Mo.

"We have provided in the ACT program close internal coordination in order to bring as many different skills and abilities to bear on customer problems as possible," a Kaiser spokesman said. "The program will allow us to work more closely with the technical people in the steel industry to assist in solving refractories problems."

Kaiser refractories also announced it is building a half-million-dollar facility at Columbiana, Ohio, for the manufacture of special refractories required in the basic oxygen steel making process.

The plant will be built adjacent to the basic refractories facilities now at Columbiana. It is due for completion by early 1961.

"This plant is a culmination of work we have been conducting for a number of years in anticipation of further expansion of the basic oxygen process by the steel industry," a Kaiser spokesman explained. "The Columbiana location is convenient to the large steel making centers of the East and Midwest, and will enable us to give our customers fast, convenient service."

Ford Boosts Warranty On Truck Engines To 100,000 Miles, 2 Years

Dearborn, Mich.—The Ford Division of the Ford Motor Co. is now offering a 100,000 mile or 24 month warranty on Ford Super Duty truck engines, one of the most complete and extensive warranties on gasoline engines.

The warranty applies to all major components of the three Ford Super Duty engines, which are available in 12 models of Heavy and Extra-Heavy trucks, including Tilt-Tandem models.

Wilbur Chase, the division's truck marketing manager, said the warranty has been extended by the company to all of its authorized Ford Heavy Duty Truck dealers and that a similar warranty will be extended by them directly or through other authorized Ford dealers, to cover all 1960 model Super Duty Trucks, for repairs performed on or after August 15, 1960.

"For the first time," Chase said, "dealers will be able to make prompt, on-the-spot warranty decisions for up to two years or 100,000 miles of service—the most liberal dealer adjustment policy ever presented by the industry."

Ford's previous warranty program on Super Duty Truck engines was the same as on cars, 4,000 miles or 90 days.

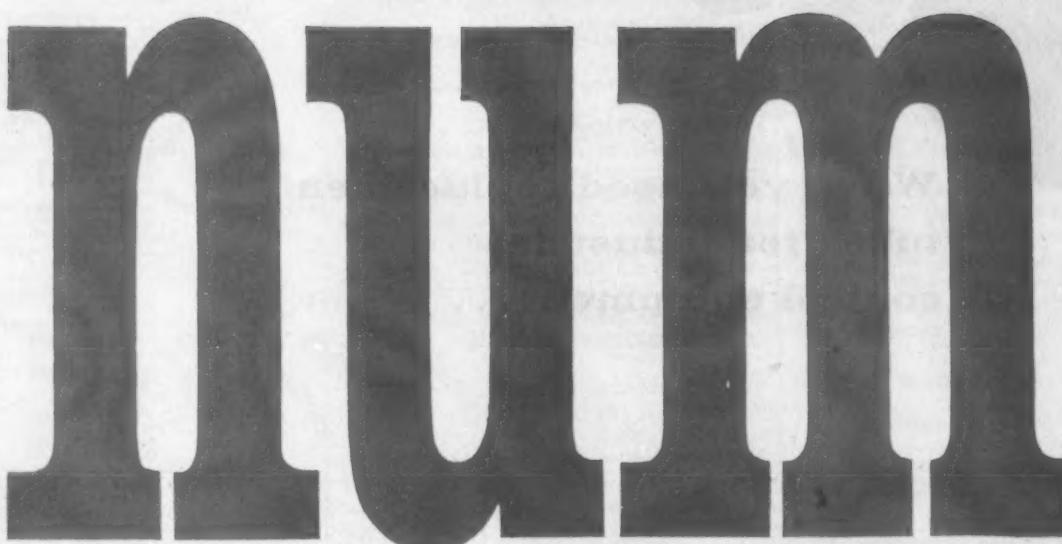
Airline Merger Proposal

Washington—The Civil Aeronautics Board will hold an open prehearing conference on the proposed merger of United and Capital Airlines, Sept. 15.

To expedite action on the proposal, which was only filed Aug. 11, the board said it already has told United and Capital specifically what economic and technical information the board wants.

United, in filing the merger proposal, requested a final decision before next Feb. 1.

Warren, Ohio!



At this moment, Bridgeport is rolling sheet at the newest of its aluminum plants, Warren, Ohio • Expect excellent delivery service. The plant location, facilities and personnel have been selected to assure it • Know too that every pound of Bridgeport Aluminum reflects 95 years of metalworking experience.

Bridgeport offers quick service nationwide. Aluminum plants at Riverside, California and Warren, Ohio are supplemented by Bridgeport warehouses. Your Bridgeport salesman, well experienced with aluminum, copper and brass, can help you select the metals and alloys that mean easier machining, forming and fabrication — and better product performance. Call him!

Specialist in Metals from Aluminum to Zirconium

Bridgeport

Bridgeport Brass Company

Bridgeport 2, Connecticut



Meetings You May Want to Attend . . .

First Listing

Tennessee Valley Agricultural & Industrial Fair—Chilhowee Park, Knoxville, Tenn., Sept. 12-17.

Chemical Exposition, USA, 1960—Statler-Hilton Hotel, New York, Sept. 13-15.

Second Annual Maintenance & Engineering Show—State Fair Arena, Raleigh, N. C., Sept. 14-17.

1960 Products Show—Veterans Memorial Auditorium, Des Moines, Iowa, Oct. 12-13.

District 5 Conference NAPA—Mayflower Hotel, Washington, D. C., Oct. 14-15.

National Metal Exposition and Congress—Trade and Convention Center, Philadelphia, Oct. 17-21.

8th District Conference NAPA—Sheraton-Ten Eyck Hotel, Albany, N. Y., Oct. 18-21.

National Institute of Governmental Purchasing—15th Annual Conference and Products Exhibit, Hotel Shoreham, Washington, D. C., Oct. 23-26.

National Business Show—Coliseum, New York, Oct. 24-28.

11th National Conference on Standards—American Standards Association, Sheraton-Atlantic Hotel, New York, Oct. 25-27.

NOVEMBER

National Business Equipment Exposition—Memorial Sports Arena, Los Angeles, Nov. 1-4.

12th Annual Serv-A-Show & Indus-

trial Exhibit—Toledo Civic Auditorium, Toledo, Ohio, Nov. 2-4.

Air Conditioning & Refrigeration Institute Exposition—Convention Hall, Atlantic City, Nov. 2-5.

National Technical Conference & Exhibit—American Production & Inventory Control Society, Sheraton-Cadillac Hotel, Detroit, Michigan, Nov. 3-4.

Material Handling Institute's Central States Show—Kentucky Fair & Exposition Center, Louisville, Ky., Nov. 8-10.

List Your Meetings

Associations, societies, and committees interested in calling the attention of readers of Purchasing Week to their meetings are welcome to use this column. The gathering should be one of interest to purchasing agents. There is no charge.

Send announcements to: Meetings Calendar, Purchasing Week, 330 West 42nd Street, New York 36, N. Y.

Previously Listed

SEPTEMBER

Machine Tool Exposition—National Machine Tool Builders Association, International Amphitheatre, Chicago, Sept. 6-16.

Production Engineering Show—Navy Pier, Chicago, Sept. 6-16.

2nd Coliseum Machinery Show—Chicago Coliseum, Chicago, Sept. 7-15.

International Aviation & Air Industries Exposition—Waldorf-Astoria Hotel, New York, Sept. 8-20.

Produce Packaging Exposition—Americana Hotel, Miami Beach, Fla., Sept. 11-14.

American Chemical Society, National Meeting—Statler Hilton Hotel, New York, Sept. 11-16.

Institute of Surplus Dealers—14th Trade Show Building, New York, Sept. 18-20.

Steel Founders Society of America—Fall meeting, The Homestead, Hot Springs, Va., Sept. 18-20.

Office Equipment & Machines Conference & Exhibit—Life Office Management Association, Royal York Hotel, Toronto, Sept. 26-28.

Instrument-Automation Conference & Exhibit—Instrument Society of America, Coliseum, New York, Sept. 26-30.

Material Handling Show—Show Mart, Montreal, Que., Can., Sept. 26-30.

Iron & Steel Exposition—Auditorium, Cleveland, Sept. 27-30.

District 2 Conference, NAPA—Hilton-Del Norte & Cortez Hotels, El Paso, Tex., Sept. 28-30.

OCTOBER

American Textile Machinery Exposition—Textile Hall, Greenville, S. C., Oct. 3-7.

Fourth Annual Procurement Conference—sponsored by the Dayton Association of Purchasing Agents, Patterson Memorial Center, Dayton, Ohio, Oct. 7-8.

District 7 Conference NAPA—Peabody Hotel, Memphis, Tenn., Oct. 9-11.

National Hardware Show—Coliseum, New York, Oct. 10-14.

Purchasing Agents Association of Central Iowa—Products Show, Veterans Memorial Auditorium, Des Moines, Iowa, Oct. 12-13.

National Association of Oil Equipment Jobbers—Annual Meeting & Trade Show, Sheraton Jefferson Hotel, St. Louis, Mo., Oct. 16-18.



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Richmond 8-2444
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Brill Electronics
TE 2-6100
Elmar Electronics
TEmplar 4-3311
Palo Alto
Zack Electronics
DA 6-5432
San Diego
Radio Parts Company
BE 9-9361
San Francisco
Fortune Electronics
UN 1-2434
Santa Monica
Santa Monica Radio Parts Corp.
EXbrook 3-8231

Colorado
Denver
Ward Terry Company
AMherst 6-3181

Connecticut
East Haven
J. V. Electronics
HObar 9-1310

District of Columbia
Electronic Industrial Sales, Inc.
HUDson 3-5200
Kenyon Electronic Supply Company
DEcatur 2-5800

Florida
Miami
East Coast Radio & Television Co.
FRanklin 1-4636
Electronic Equipment Company
NEwtown 5-0421
West Palm Beach
Goddard Distributors, Inc.
TEmple 3-5701

Illinois
Chicago
Allied Radio Corporation
HAymarket 1-6800
Newark Electronics Corp.
STate 2-2944

Indiana
Indianapolis
Graham Electronics Supply Inc.
MErlane 4-8486

Maryland
Baltimore
Wholesale Radio Parts Co., Inc.
MULberry 5-2134

Massachusetts
Boston
Cramer Electronics, Inc.
COpley 7-4700
DeMambro Radio Supply Co., Inc.
AL 4-9000
Lafayette Radio Corp. of Mass.
Hubbard 2-7850
Cambridge
Electrical Supply Corporation
UUniversity 4-6300

Michigan
Ann Arbor
Wedemeyer Electronic Supply Co.
NOrmandy 2-4457

Detroit
Ferguson Electronic Supply Co.
WOodward 1-2262

Minnesota
Minneapolis
Electronic Expeditors, Inc.
FEderal 8-7597

Profitable Reading for P.A.'s

New Books

Social Science Research on Business: Product and Potential, by Robert Dahl, Mason Haire, and Paul Lazarsfeld. Published by Columbia University Press, 2960 Broadway, New York 27, N. Y., 185 pages. Price: \$3.00.

Written as part of the Ford Foundation's program to stimulate interest in the study of business, the three essays that make up the book stress the importance of business research.

What is the present relation between social structure and economic institutions? What psychological conditions are

necessary for efficiency in business enterprise? What end results might the present organization of business in the U. S. have for the political system? These are just some of the vital questions raised in this book. An annotated bibliography is also included.

Human Relations in Management, by I. L. Heckman, Jr. and S. G. Hunerwyler. Published by Southwestern Publishing Co., 5101 Madison Road, Cincinnati 27, Ohio. 776 pages. Price: \$7.50.

This book tells you how to use tools of human relations to get the most from your employees.

The authors explore in detail significant topics such as: counseling employees, management by participation, barriers and gateways to business communication, and resistance to change—its analysis and prevention. The viewpoints of leading authorities in this field are liberally quoted. The importance of human relations is stressed to motivate the employee constantly to strive to improve his work performance.

The manner in which the text material and discussion questions are presented makes this comprehensive publication an outstanding contribution to management education.

From the Associations

Small Orders Problems

National Industrial Conference Board publication presents a valuable aid in analyzing small-order problems and gives executives proven ways to reduce their number of orders and, consequently, their cost. The different types of small orders are discussed, including items overlooked when placing a large order, trial orders from new accounts or for new products, repair, or replacement parts orders, etc.

The pamphlet also explains the use of price differentials as a powerful weapon in attacking the small-order problem and recounts the experiences of the 254 companies participating in this study. The cost of this 38-page research report (No. 94) is \$10; it may be obtained from the National Industrial Conference Board, 460 Park Ave., New York 22, N. Y.

From the Manufacturers

Appearance Panels

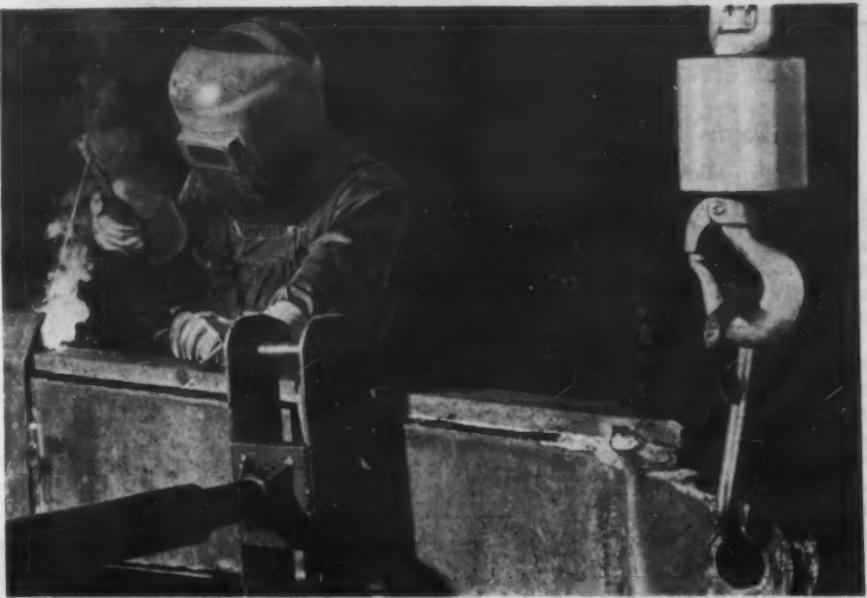
Discusses over 500 full appearance panels for auto body repair. Information given includes the parts number, exact car model, year, suggested price, and body shop net. Illustration reference pages show where the panels fit on the different automobiles. Catalog 260 (15 pages). Slip-On Corp 9523 Detroit Ave., Cleveland 2, Ohio.

Corrosion-Resistant Drainline

Describes company's product "Vulcathene" as a permanent acid and corrosion-resistant waste and drainage system of plastic plumbing equipment. Gives technical and dimensional information, installation notes, thread size tables, and chemical resistance information (20 pages). American Vulcathene Div., Nalge Co., Inc., 75 Panorama Creek Drive, Rochester 2, N. Y.

Gears and Speed Reducers

Gives information on company's line of gears and speed reducers—including sizes, ratings, specifications, and selection data. Covers 14½° and 20° pressure angle spur gears, bevel gears, mitre gears, racks and sprockets, fin and fan cooled speed re-



LOW-VOLTAGE INSULATED LINK (on right) separates hoisting mechanism from the weldment, prevents current from flowing back through the chain and shorting out the hoist. The links are available in sizes from ½ ton to 5 ton from E. D. Bullard Co. in Calif.

ducers (to 25 hp.), etc. (246 pages). Ohio Gear Co., 1333 East 179th St., Cleveland 10, Ohio.

Heat Transfer Equipment

Contains product description and specifications on company's line of laboratory and production blenders, vacuum tumble dryers, packaged pilot plants, process heat exchangers, etc. No. 16-P (19 pages). Patterson-Kelley Co., Inc., Chemical & Process Equipment Div., East Stroudsburg, Pa.

Tantalum Capacitors

Gives technical information concerning wet-type tantalum capacitors including specifications, performance characteristics, ratings, curves, and application data. Bulletin 6.110-5 (13 pages). Fansteel Metallurgical Corp., Rectifier-Capacitor Div., North Chicago, Ill.

Shaped Wire

Covers company's line of various pre-shaped wire, plus methods of calculating areas of common shapes, physical properties of steel wire, table of standard wire gages, and hardness conversion tables. Catalog DH-1226-A (16 pages). Page Steel Wire Div., American Chain & Cable Co., Inc., Monessen, Pa.

Presses

Describes company's line of mechanical and hydraulic presses, press brakes, hydraulic shears, and special machinery. Presents basic specifications—dimensions, capacity, shut height, etc. Catalog 6-60 (24 pages). Verson Allsteel Press Co., 9300 S. Kenwood Ave., Chicago 19, Ill.

Rotary Files

Presents Wassell's new line of horizontal rotary files and rotary-file desks to facilitate and organize different types of clerical duties. Discusses data processing, card indexing, filing correspondence, etc. Wassell Organization, Inc., Westport, Conn.

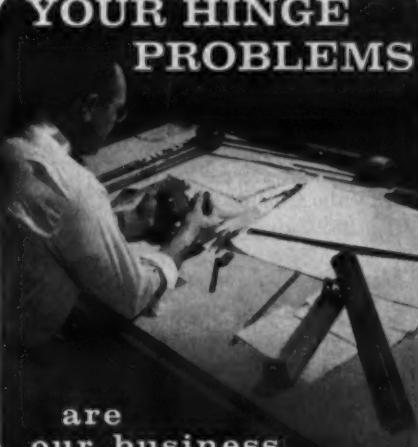
Direct Name Filing

Discusses special direct name systems for geographic, subject, numeric, and decimal use. Explains the function of the component parts and the advantages of the indexing method. (11 pages). Yawman & Erbe, Rochester 3, N. Y.

Rotary Swaging

Outlines rotary swaging process and illustrates typical swager dies. Also discusses correct method for selecting the proper machine for a specific swaging operation. (24 pages). Torrington Co., Swaging Machine Div., Torrington, Conn.

YOUR HINGE PROBLEMS



are
our business

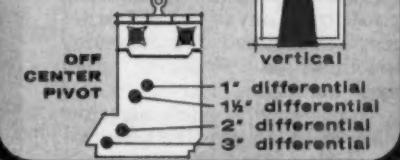
HOW WE SOLVED ONE CUSTOMER'S PROBLEM

PROBLEM:
A manufacturer of picture frames wanted to hinge an easel that did not run on a diagonal, yet would support the frame from the center when placed in either vertical or horizontal position.



THIS FOR CENTER EASEL SUPPORT

SOLUTION:
Wagner engineered a swiveling hinge with an off-center pivot that raised the easel for the shorter, horizontal support . . . lowered the easel for the longer vertical support. A choice of four pivot holes permitted hinging several frame sizes with one hinge.



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Wagner hinges can be relied on for close standards of accuracy. Available in all metals and finishes. Continuous hinges in any lengths; widths from $\frac{1}{8}$ " to 11" and material thickness from .018 to .125. What we cannot deliver from stock . . . we design and make. Let our staff solve your hinge problems . . . we have been doing it for many manufacturers for over fifty years. Complete facilities to speed deliveries — produce at low cost.

E. R. WAGNER
Manufacturing Co.
4607 No. 32nd Street
Milwaukee, Wis.

Industry News In Brief

Dow Forms Sales Unit

Midland, Mich.—The rapid growth of urethane chemicals has prompted Dow Chemical Co. to establish a specialized unit to handle sales in the field as well as technical assistance and service.

A Dow spokesman said the new group would "provide concentrated service in depth on polyglycols and derivatives for resilient foams, rigid foams, and elastomers to the comfort cushioning, refrigerator, rubber, automotive, boat, and construction industries."

Chemical Div. Split

New York—The Enjay Chemical Co., a division of Humble Oil & Refining Co., has split its former Chemicals Division into two new product units—Industrial Chemicals and Chemical Raw Materials.

The split was made necessary, a company spokesman said, by "the increasing complexity of Enjay's chemical business and the large number and volume of chemicals that are currently handled by the Chemicals Division."

Market High-Heat Unit

Seattle—Portable, high intensity infra-red heating units capable of sustaining prolonged temperatures to over 3,500 F. are being made in standard models for industrial and commercial uses by the Plastic Weld Co. here.

Using a new patented ceramic reflector developed by Richard Panek, president, the compact ceramic-quartz radiant heat units promise longer life under intense heat, greater control of temperature ranges to within plus or minus 2½ F., lower installation and operating costs, and curing times as much as 10 times faster than conventional heat sources, according to the company.

Convair Builds

San Diego—A new million-dollar controlled environment electronics manufacturing facility is under construction at Convair-Astronautics Division of General Dynamics Corp.

The 68,400 sq. ft. building, designed by Convair plant engineers, will extend Astronautics' capabilities in producing precision autopilots, missile tracking transponders, high-intensity optical beacons, satellite orientation devices, and satellite payload instrumentation systems. These components are integral parts of guidance and tracking systems necessary for space vehicle operations.

NYTL Issues Reports

New York—A unique, time-saving monthly service, called the "NYTL Laboratory Guide Reports", will be made available for the first time this fall by New York Testing Laboratories, Inc.

Of basic interest to engineers, physicists, chemists, metallurgists, instructors, quality control personnel, purchasing agents, and

salesmen, these informative reports are designed to bring quick and authoritative answers to many typical problems encountered in laboratory procedures.

The NYTL reports will cut across all fields of industrial laboratory work and will cover not only conventional approaches, but the very latest in laboratory techniques as well.

Taylor Buys Dytronics

Norristown, Pa.—Taylor Fibre

Co., manufacturers of laminated plastics and vulcanized fiber, is acquiring Dytronics Inc., Rochester, Mich., manufacturers of die-stamped circuits for electrical and electronic applications.

Plans also are under way to immediately expand production facilities in the Rochester area, improve and modernize production equipment, and intensify the company's research and development activities. Acquisition of Dytronics will strengthen Taylor Fibre's position in the \$50-million printed circuit industry.

Sunray Sets Up New Firm

Tulsa, Okla.—A chemical and petrochemical research, manufacturing, and sales company will be organized here as a wholly-owned subsidiary of Sunray Mid-Continent Oil Co.

A Sunray spokesman said the new firm, Sunray Chemical Co., will engage in all phases of the chemical and petrochemical business "where there is a reasonable expectation for future growth and profits."

UMC Bids for Glasco

St. Louis—Universal Match

Corp. has made a bid to purchase the Glasco Corp. of Muncie, Ind. in order to acquire a complete line of vending machines, food service equipment, and fiber glass products.

Universal says the acquisition will enable it to compete even more strongly in every phase of vending machines, food service, and allied fields.

Walworth Forms New Div.

New York—Walworth Co. has formed a new Lubricated Plug Valve Division with sales and service headquarters in Houston, Texas.

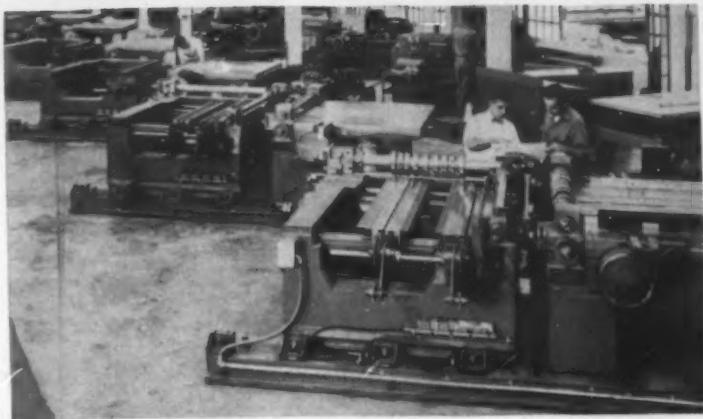


Baldwin-Lima Expands Industrial Equipment Div.

Eddystone, Pa. — Baldwin-Lima-Hamilton Corp. has reorganized production operations here in a move aimed at speeding up manufacture of its Hamilton can-making machinery.

All machining and assembly operations have been integrated into one self-contained shop in the company's expanded Industrial Equipment Div. plant located here.

The new facility here includes 26,000 sq. ft. A 20-ton overhead crane has been added for materials handling.



UNDER ONE TENT: Baldwin-Lima's self-contained shop at Eddystone, Pa., includes personnel and equipment from old plant at Hamilton, Ohio.

Bethlehem Maps Expansion Of Industrial Fastener Plant

Seattle—Bethlehem Steel Co. has announced plans to expand its industrial fastener plant here in an effort to gain a "service advantage over other suppliers" of cold-formed bolt products.

"New equipment and improvement in facilities," said the Bethlehem announcement, "will place the plant in a better position to serve the Northwest with cold-formed bolt products ranging up to 1-in. dia. and up to 6 in. in

length from a single local source."

The new facilities also will allow the plant to turn out a greater variety of fastener specials, some of which can only be manufactured on the type of cold-forming equipment that will be installed at Seattle.

Included among the new equipment will be a $\frac{3}{4}$ -in. cold boltmaker for production of $\frac{5}{8}$ -in., $\frac{3}{4}$ -in., and $\frac{7}{8}$ -in. bolts and $\frac{1}{2}$ -in. and 1-in. rivets up to 6-in. long.

The company also will install a new Universal cold header to make $\frac{1}{2}$ -in. and $\frac{5}{8}$ -in. dia. bolts and $\frac{1}{2}$ -in., $\frac{5}{8}$ -in., and $\frac{3}{4}$ -in. rivets, all up to 6-in. long. In addition, new equipment for washing and applying rust protection for cap screws will be installed, along with stress relieving facilities for drawing or tempering heat-treated bolts and annealing rivets.

All existing cold making equipment as well as the new machinery, said Bethlehem, will be installed in a new 20,000-sq. ft. building that will be constructed alongside the company's existing plant.

Don't handicap any new grinder . . .

give it the Norton wheel it needs!

Scores of new grinding machines will be on display at Chicago — cylindrical and centerless grinders, surface grinders large and small, internal grinders, tool grinders of all kinds, thread grinders, disc grinders, universals. Whichever you buy keep in mind that:

FIRST: No grinding machine can be better than its grinding wheel.

All the design talent and skill that goes into producing any grinding machine . . . including ours . . . is brought to a focus on one relatively small element — the contact area between grinding wheel and workpiece. Naturally, if the wheel that makes this contact is a below-par performer, so is the entire machine.

SECOND: No grinding wheel can be better than a Norton wheel.

This second fact is just as solid as the first. For Norton has put more time and effort into the pioneering and development of abrasive products than has any other organization. The result is unquestioned in the abrasive field. Norton wheels have been giving on-the-job proof of top performance for 75 years. And today Norton continues leadership in the following:

75 years of . . . Making better products . . . to make your products better

NORTON PRODUCTS: Abrasives • Grinding Wheels • Machine Tools • Refractories • Electro-Chemicals — BEHR-MANNING DIVISION: Coated Abrasives • Sharpening Stones • Pressure-Sensitive Tapes



W-1989

RCA Transplants Home Instrument And Sales Units

Camden, N. J.—Radio Corporation of America will shift its Home Instrument Division and the RCA Sales Corp. to Indianapolis, Ind. RCA said the move would put these divisions "in the center of RCA's home instrument manufacturing complex."

"This move," the firm said, "will close a 700-mile gap between administrative headquarters and the production activities of RCA."

The move, based on a two-year survey, will result in better service to distributors and dealers, RCA said. RCA home instrument production facilities were originally in Camden, but are now wholly in the Middle West.

The space made available by the shift will be utilized by RCA's Electronic Data Processing Division, now spread over seven locations in the Greater Camden Area.

Baird Machine Updates Century-Old Distributor Setup of Barrel Division

Stratford, Conn.—The Barrel Finishing Equipment Div. of The Baird Machine Co. is reorganizing its century-old distributor set up.

The new plan calls for the appointment of 21 major distributors to the metal finishing field in key market centers. These distributors will operate on an exclusive basis within their sales territories, will carry barrel stock and maintain technical service, and have the right to appoint franchised distributors in their areas.

HOW GOOD ARE YOUR INTERNAL CONTROLS?

Here's What to Do if the Checklist Shows Chinks in Your Armor

Inventory management gets down to hard cases at plant receiving gate. Here's where new sets of hands take over responsibility for incoming purchased goods. And here, right at the outset, is where internal controls become essential.

Internal controls, according to St. Regis Paper's James A. Cashin, oft-quoted authority on internal auditing, are simply ways of insuring that the company's plan of organization, policies, procedures, and operating rules are followed. Put another way, they're a means of making certain that the right materials are at the right place in the right quantities at the right time.

They're called "internal" because in using them, management is checking on itself. The opposite—external controls—would be those used by outside

auditors or certified public accountants. The specialists who do a company's internal control work are called internal auditors (see PW, Feb. 8, '60, p. 38).

The P.A. also has a vital role in internal controls, Cashin says, because he is the one who knows exactly what was ordered—the specifications, quantity and quality—and the supplier, method of transportation, etc. How vital this role is can be seen from the examples of common inventory control problems cited by Cashin in the box below.

Internal controls safeguard company assets, increase efficiency and doublecheck the reliability of accounting data. They're usually arithmetical in form, but the P.A. doesn't have to become a CPA to look at inventory management with the eye of an internal auditor.

The first thing you need in order to set up a fool-proof internal control setup, says Cashin, is a policy based on the idea that no one person should control all phases of a transaction without a cross-check by someone else. This is probably the most basic way to stop mistakes and thievery within a company.

You probably have some cross-checks in your operation right now. One of the most simple ones: a requirement that the P.A. or head buyer sign all purchase orders. Another: compare the purchase order and the receiving report before giving the accounting department the green light to pay the vendor.

Compare your receiving, storage, and disbursement controls with the check lists above. How do you rate? If you're not perfect in each department, try this step-by-step plan to bring inventory under

TEN COMMON LOOPHOLES IN

(1) Sloppy Check-In Procedures

Receiving clerks often make out reports which show only the number of packages or units received, and don't check the contents. One company found that old newspapers and junk had been substituted in transit for valuable materials. Because the clerk didn't check the contents on delivery, it was too late to fix the blame.

(2) Inadequate Receiving Records

Often there's no report to the P.A. that the material on order has come in. Or a clerk merely transfers the "quantity ordered" from P.O. to receiving report without checking actual quantities. Shortages and foul-ups follow. One firm found itself paying twice for the same item. Another explained its lack of receiving reports by saying, "We figure if we shipped finished goods to our customer, we must have received enough raw material, or else how could we have shipped the order?"

(3) Short Weights Due to Supplier Error

One firm was bothered by shortages of a bagged raw material despite the fact that one bag of each pallet load was being weighed by a receiving clerk. When the shortages persisted, all bags from three complete pallets were weighed. One-quarter of them were short weight. It developed that the supplier was shipping equal numbers of bags from four plants, but the loading scale at one plant was

defective, and all its bags were consistently underweight. The short weight had slipped by because the clerk weighing the bags would check a second bag if the first appeared underweight. By chance, the second always turned out to be on-weight, and the clerk never reported the shortage.

(4) Misunderstood Receiving Procedures

One company had an agreement with a supplier that stated vendor's weight would govern the shipping cost of 300 barrels of chemicals valued at several hundred thousand dollars. The receiving department thought the purchase order meant that no weight check was necessary, and it accepted the net weights on the outside of the drums as correct. Once weighed, however, the figures proved to be inaccurate and purchasing put in a claim for the difference. Receiving was instructed to check all weights for error in the future.

(5) Freight Carriers' Error

One company found the weight of a tank car increased by 700 lb. when it picked up an accumulation of mud, snow, and grease. This resulted in a loss to the company because the tare (unloaded) weight, rather than actual weight, was deducted from the gross weight to determine the weight of the shipment.

Another firm found several hundred pounds had been added to a car during repairs, but no adjustment had been made in tare weight.

I—RATE YOUR CONTROL OF RECEIPTS

1. Do you have a specific receiving location?
2. Do all receipts clear through this location (or locations)?
3. Is receiving independent of purchasing and production?
4. Are copies of receiving reports routed directly to purchasing, inventory control and accounting?
5. Is receiving informed on expected deliveries?
6. Is procedure set up to inform receiving immediately of emergency receipts as result of verbal orders placed by purchasing?
7. Is material received independently counted, weighed, or otherwise measured?
8. Does receiving personnel know what to test-count — and how to test count?
9. Is receiving personnel informed on trade practices regarding shrinkage, evaporation, etc. as to allowed variations?
10. Does the stores department approve receipt, or place goods in stock, only after quality inspection when such inspection is specified?
11. Do only authorized receiving clerks report receipts?
12. Are clerks informed on reporting overages, shortages, and damages?

13. Do clerks always have carriers' agent sign notation of damages before acknowledging receipts?
14. Are scales used to weigh materials inspected periodically?
15. Is procedure established and followed for unusual receipts such as pick-ups in company trucks or intra-company transfers?

II—RATE YOUR CONTROL OF STORED MATERIALS

A. PROCEDURAL CONTROLS

1. Is responsibility for storage and quantity control definitely fixed?
2. Do you have centralized storerooms?
3. Are storerooms enclosed and keys controlled to prevent access by unauthorized personnel?
4. Are perpetual inventory records maintained where possible?
5. Are records verified by physical count periodically?
6. Are significant differences between book figures and physical counts investigated and causes determined?
7. Are records reviewed periodically for obsolete, damaged, or slow-moving stock?

B. OPERATING CONTROLS

1. Are workable controls used in determining inventory quantities?
2. Are controls fully understood by all personnel concerned with inventory management?
3. Is maximum use made in inventory management of available EDP accounting equipment?
4. Is cost of maintenance of inventory controls in line with benefits derived from such controls?

III—RATE YOUR CONTROL OF WITHDRAWALS

1. Do stores clerks know of company personnel authorized to make withdrawals?
2. Is a withdrawal authorization form used?
3. Does this form provide space for date of withdrawal?
4. Is provision made and understood for withdrawals in absence of first line of authorized personnel?
5. Do all requisitions originate outside of store-room or shipping department?
6. Is a shipping order form in use for withdrawals resulting in shipments out of plant?
7. Are reports prepared by shipping unit proved against billings to customers, and to inventory withdrawals?

firm internal control every inch of the way through your plant.

How to Set Up Internal Control of Receipts

(1) Central Receiving Location. Establish a specific receiving location and make it mandatory for all incoming material to clear through this location. This way the responsibility for receipts will then be limited to a very few individuals.

(2) Independence of Receiving Function. Make the receiving function independent of purchasing or production responsibilities, in line with the basic internal control idea of cross-check of duties. Thus, receipts should be acknowledged by a person or department other than the one which makes the purchase; this eliminates opportunity to create fraudulent payable claims without detection.

(3) Notice of Incoming Goods. Send a copy of the purchase order to the receiving department to act as the receiving clerk's authority to accept the material.

Some companies prefer to show quantities on the copy going to the receiving department so that any differences between amounts ordered and amounts received can be discovered immediately. Others maintain that omitting the amounts ordered eliminates the tendency to acknowledge receipts without actually checking the material. Deciding factor: your confidence in the receiving department.

(4) Quantity Check. Build the framework for an independent counting, weighing, or measuring of all material received. This does not necessarily mean that each individual unit must be weighed, however; for example, if a large number of like units is

received, such as bales, with individual weights stamped on the bales, it is the general practice to spot check the items.

With bulk material such as coal or ore, good internal control would have the receiving department weigh in the gross lot and weigh out the empty cars or trucks.

When large quantities are concerned, factors such as normal evaporation or shrinkage are natural, and trade practice generally allows variations up to an agreed percentage.

(5) Quality Inspection. Where inspection is necessary do not permit the stores department to okay a receipt or place goods in stock until inspection has been completed.

Many companies have a quality control laboratory
(Continued on page 29)

INTERNAL CONTROL SCHEMES

(6) Engineering and Technical Problems

The receiving department of one company reported mysterious shortages of a chemical during winter—the colder the day, the greater the shortage. Engineers investigated and found that when the temperature dipped below a certain level, some of the chemical would freeze in the bottom of tank cars. Cure: steam heat.

Another firm received an unexpected bonus: more material from each tank car than the vendor had estimated. It turned out that new high pressure unloading equipment helped get more out of each car although it had been installed only to speed up the unloading job.

(7) Poor Coordination Between Receiving Points

Auditors say all receiving should be done at one point for best control. Example: One company found its materials came into inventory in four ways: through the regular receiving department, delivered to a warehouse, delivered direct to the production line, and individually purchased, hand carried, special items. Often the P.A. didn't know what had been received at the different points because there was no coordinated reporting procedure.

(8) Loose Control Over Small Purchases

Many companies buy small operating supplies from local vendors and pick them up with the company truck. There's no record or receipt

or entry into inventory; often the item goes directly to maintenance or operating men without the P.A. knowing that the proper item was purchased or that the price was right. And there's a chance for collusion between the pickup man and vendor employees. To counteract this, one firm requires all pickup items come through the receiving desk before delivery within the plant.

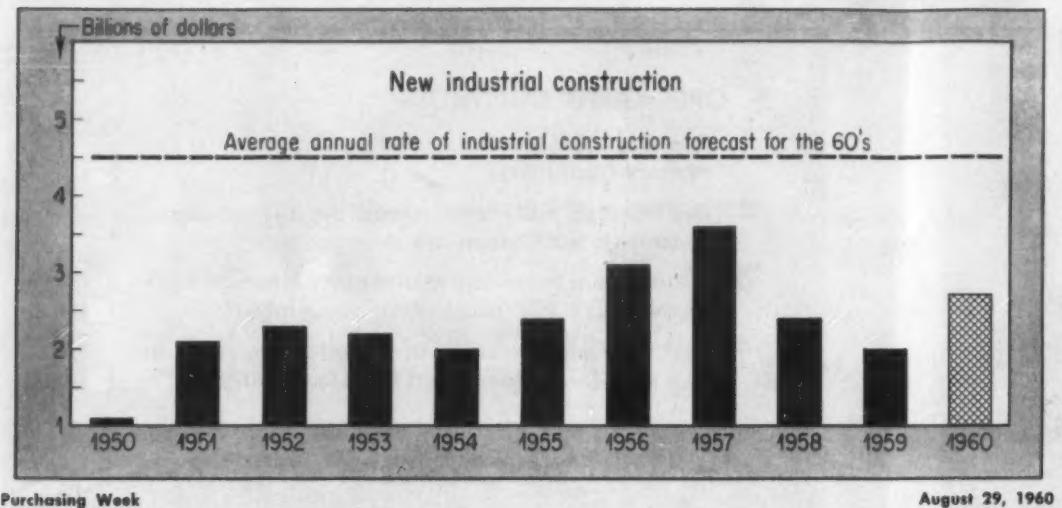
(9) Unauthorized Purchases

At this particular company, a simple rule requiring a purchase order for all materials bought on the company's account wasn't enough to stop unauthorized purchases. Department heads and other managers kept by-passing the purchasing department because vendors were always glad to accept their order without P.A. approval.

Then the auditor refused to authorize payment for items bought without P.A. purchasing authorization. Vendors quickly began to cooperate.

(10) Purchase of Stamps

Even though a stamp machine is used, it's no guarantee of control. One thief stole thousands of dollars by buying less than the metered amount he had been told to buy, taking the remainder in loose stamps and then selling the stamps. Remedy: Require post office stamped receipts and a check of the postal meter after re-setting.



Purchasing Week

Plant Construction Spurts

New York—A new McGraw-Hill study on the outlook for industrial construction during the 1960s unfolds trends in plants and equipment that will have a marked influence on purchasing, particularly in the area of new products.

Industrial construction—i.e., building of factories and warehouses—should experience a substantial boom in the decade, according to the McGraw-Hill study. Based on the continuance of past trends, new plant and

equipment outlays (in terms of 1960 dollars) should average \$4.5-billion annually in the coming decade as compared to the \$2.3-billion annual average of the 1950s (see chart left).

Already Started

The expansion has already started. In 1960, industrial construction volume is expected to reach the \$2.7-billion mark—a considerable increase from the \$2-billion level of 1959.

By 1970 industrial construction expenditures should exceed \$5-billion. Compare this with the 1957 high of \$3.6-billion.

New products will be responsible for much of this growth. Plant and equipment for the production of new products requires much greater outlays than does expansion of facilities to produce existing products.

The impetus behind new product growth is the increasing emphasis industry is placing on research and development (R&D). Industry, according to the study, will lay out \$9.6-billion for R&D this year and plans to spend almost \$11-billion by 1963.

In 1963, new products will account for an estimated 12% of the sales of manufacturing companies. If industry continues its stepped-up R&D programs, there's a good chance that by 1970 more than 33% of all manufacturing sales will be goods not currently produced.

Projected Trends

Projected trends for industrial construction in specific industries indicate pretty well just where product changes are anticipated:

- **Nonferrous metals, instruments, and machinery (including electrical):** These industries are expected to increase their plant construction outlays considerably. And new products will figure largely in their surge. New kinds of electrical and other machinery are expected to account for 40% to 50% of 1970 machinery sales; aluminum should make sharp inroads in markets—especially construction—which today belong to steel.

- **Chemical process industries:** This area will also be spending at above average rates for new plants and equipment during the 1960s as: plastics continue their sweeping incursion into packaging and construction markets; the paper and glass industries develop new containers through chemical treatment; lamination with plastics, and coatings; and rubber manufacturers increase and improve their synthetic production.

- **Textile and food:** Construction outlays in these fields should expand at about the average rate for all industries.

- **Transportation equipment, automobiles, petroleum:** These industries all look to expand their productive facilities more slowly than the over-all industry average in the coming decade, according to the study. They already have capacity in excess of any level of demand expected in the near future. The automobile industry, for example, can produce 10-million cars and trucks



Daniel Heisler, Purchasing Agent, Circle F Mfg. Co.

"When I buy components . . .

I look for PROVED PERFORMANCE"

. . . says Mr. Daniel Heisler, Purchasing Agent of Circle F Mfg. Co. "In our guaranteed wiring devices, such as this No-Klik® quiet switch, we require proved performance . . . even exceeding Underwriters' Laboratories high standards. Performance of Mallory contacts has been proved. A group of switches are still operating in our testing laboratory after more than 1,750,000 cycles . . . the equivalent of over 150 years of normal service. We've used Mallory performance-proved contacts for over five years."



See MALLORY for:

- Dry Battery Systems
- Capacitors
- Controls
- Silicon Rectifiers
- Timer Switches
- Vibrators
- Contacts
- Special Metals
- Electronic Assemblies
- Welding Materials

as New Products Blossom

annually, and is geared to change its products without drastic change in production setup.

• **Steel and lumber:** The chances are there will be a considerable slowdown in expansion outlays for these industries since they stand to suffer from market competition from the newer materials.

Don't Overlook Steel

But the P.A. shouldn't overlook steel and lumber as a source of new products. Both industries have already speeded up their R&D spending—steel, especially, has greatly increased its new product development expenditures since 1953 (see PW, Aug. 22, '60, p. 1).

The McGraw-Hill report, entitled "Ten-Year Outlook for Industrial Construction," also points out that new plant construction will tend in the direction of a larger number of moderate-size plants rather than a relatively small number of large plants.

That means that P.A.'s are likely to spread out in the same way, with smaller staffs working in more widely dispersed plants, rather than being concentrated in a few large headquarter cities.

Reasons Behind Change

The two reasons cited by the report as responsible for this outlook are:

• **Rising personal incomes:** The increase in real family income—forecast at 25% to 30% over the 1960s (it rose 17% in the 1950s)—will create an added demand for luxury items and custom-made products. Production of such goods requires smaller plants than used for mass-market products.

• **Transportation trends:** The expanding national highway system will give a boost to truck transportation of goods and automobile transportation of workers. Whereas location near railroad centers formerly was a prime consideration for manufacturing firms, now they can be near local markets as well as labor supply at many points along the numerous primary highway routes. Production capacities—and, therefore, plant size—will, then, probably be geared to smaller final markets than formerly.

This won't mean any loss in efficiency. In fact, experience has shown that, for many products, efficiency drops drastically when capacity is enlarged beyond a critical optimum level.

Plant Locations

Where are the new moderate-size plants most likely to appear? This question is important because the P.A. who has a hunch his firm will be expanding can start filing away new sources of supply that may come to his attention.

The main factors which will influence new plant location are, according to the study, population movement and availability of economical power supply.

Population shifts to the South and West—which were evident in the 1950s—will continue in the coming decade, bringing about important market shifts as well.

Wells Cargo Claims First Compact Fifth Wheel Unit

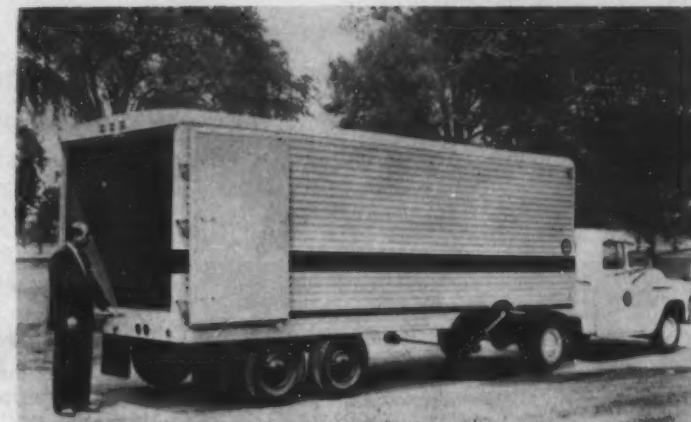
What this can do to industrial construction is illustrated by the fact that California in 1940 produced less than 1-million tons of steel annually, and today can produce more than 5-million tons.

Low-cost power—always an important production consideration—is being developed in such areas as Texas and the Ohio River Valley, while in the Pacific Northwest, low-cost electricity will probably become harder to obtain in the future than it has in the past.

Elkhart, Ind.—Wells Cargo, Inc., has come up with what it claims is the first compact fifth wheel semi for practical pickup and delivery of bulky equipment, materials, or merchandise.

Designed for an ordinary $\frac{3}{4}$ -ton pick-up, the new unit, says Wells Cargo, can be jack-knifed a full 90 degrees while placing 30% of the payload on the fifth wheel itself.

The 4-ton capacity unit is available in 20-ft. to 30-ft. lengths at prices beginning at \$2,145.



WELLS CARGO COMPACT: Fifth wheel unit, designed for $\frac{3}{4}$ -ton pickup, has heavy-duty steel frame, aluminum exterior, plywood inner walls.

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Ignore the humidity. Forget the flood in the stock room. ATLANTIC BOND stays fresh, crisp and dry in its own weathertight package. You'll love ATLANTIC BOND quality, too. The opacity. The smooth, uniform surface. And to make an extra-good impression, use matching ATLANTIC BOND Envelopes. Ask your Eastern Franchised Merchant for samples of both. Or write us direct.

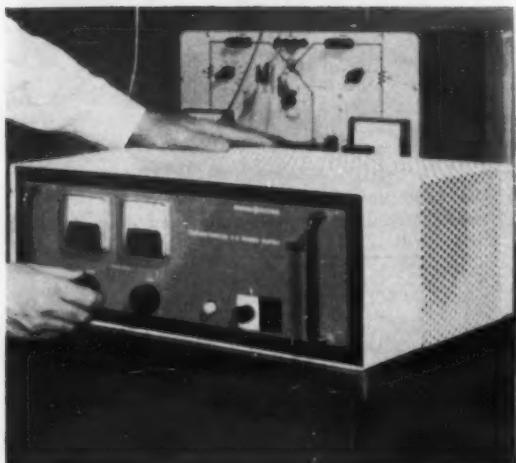
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ATLANTIC BOND 20

Here's your weekly guide to...



D-C Power Supply

1.5 to 100 Volts

Complete line of 30 standard transistorized d-c power supplies is available with output voltages ranging from 1.5 to 100 volts. Equipment design reduces required components by 25%. It is intended for laboratory, test and original equipment applications.

Price: \$350 to \$1,100. Delivery: immediate.

Low Voltage Switchgear Department, General Electric, Philadelphia, Pa. (PW, 8/29/60)



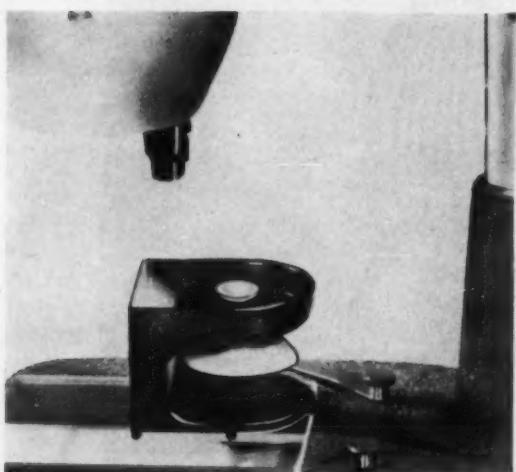
Stapler

Has New Type Staple

Desk unit inserts staple with both legs pointing in the same direction. Slight pull permits easy removal of succeeding top sheets without having to refasten remaining pages. This two-tone gray model is also effective as a tacker.

Price: \$15.25. Delivery: immediate.

Bostitch, 2017 Briggs Drive, East Greenwich, R. I. (PW, 8/29/60)



Microscopic Stage

Simplifies Inspection

Rotating stage is recommended for microscopic inspection of very small components and assemblies. A touch of the finger revolves the stage, and an angled mirror gives top and side view of object on stage. Size of unit is 2 in. x 2 in. x 2 in.

Price: \$9.95. Delivery: immediate.

Edmund Scientific Co., Barrington, N. J. (PW, 8/29/60)



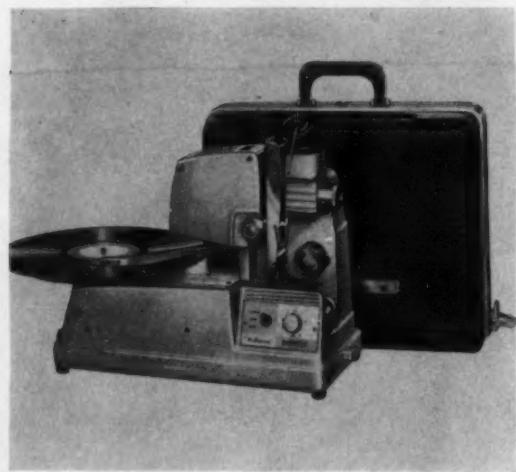
Hoist

Is Lightweight

Heavy duty manually operated winch-hoist is capable of lifting, lowering, or pulling 6,000 lb. Unit weighs 26 lb. and can be equipped with 30, 60, or 80 ft. of cable. It has been proof tested at more than 135% of its load rating.

Price: \$149.90. Delivery: 1 to 2 wk.

Indus Corp., 1815 Madison Ave., Indianapolis 25, Ind. (PW, 8/29/60)



Slidefilm Projector

Eliminates Beeps

"Micromatic" sound slidefilm projector automatically synchronizes projected pictures with narration and sound effects. Inaudible impulses of 30-50 cycles cut into records activate picture changes without annoying beeps or bells. No film rewinding is necessary.

Price: \$230. Delivery: immediate.

Audio-Visual Div., Du-Kane Corp., St. Charles, Ill. (PW, 8/29/60)



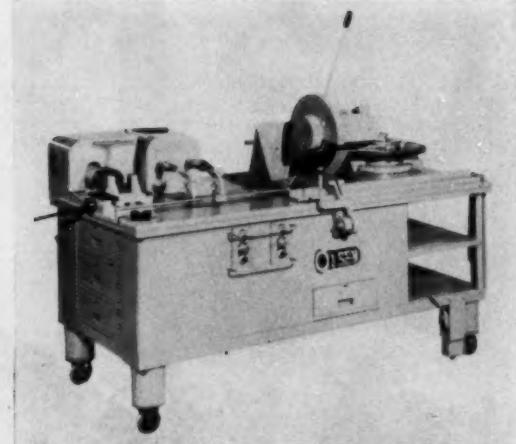
Holder Kits

For Welding Electrodes

Resistance welding electrode holder kits are designed particularly for small shops with many short-run welding jobs. Eleven kits are available and from three to nine setups are possible depending on the kit. They are suitable also for repair work in plant maintenance shops.

Price: \$22.63 to \$126.27. Delivery: immediate.

Mallory Metallurgical Co., Indianapolis 6, Ind. (PW, 8/29/60)



Tube Fabricator

Is Portable

Tube fabricating work center has power tools installed on portable steel workbench for cutting, deburring, flaring, and bending of hydraulic and pneumatic tubing installations. The equipment handles heavy wall tubing in sizes from $\frac{1}{4}$ in. to $2\frac{1}{2}$ in.

Price: \$1,232 to \$2,599. Delivery: 4 to 5 wk.

Olsen Mfg. Co., Inc., 4622 Delemere Blvd., Royal Oak, Mich. (PW, 8/29/60)

Purchasing Week Definition

Common Fasteners

Bolt. Most popular way to fasten two parts together. A bolt consists of a solid head on a cylindrical metal bar which is threaded to receive a nut. The nut is a perforated block (usually metal) with an internal screw thread designed to mesh with a bolt.

Screw. A cylinder having a thread wound in successive coils (helices). A screw generally needs no nut, but is inserted into a tapped hole.

Useful terms in specifying nuts and bolts include:

Washer face. A circular boss

(projecting part) on the bearing surface of a bolt head.

Height of head, or thickness of nut. The over-all distance from top to bearing surface, including thickness of washer face as provided.

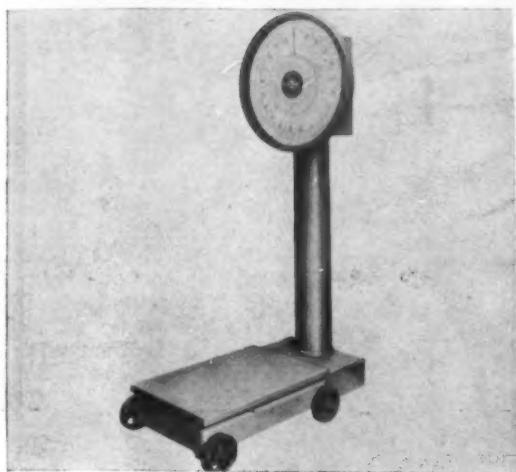
Taper of bolt head or nut. The angle between a side and the axis.

Thread length. Distance from the extreme point to the last completed thread.

Bolt length. Distance from the bearing surface of the head to the extreme point of the bolt. (PW, 8/29/60)

New Products

Another PURCHASING WEEK service: Price and delivery data with each product description.



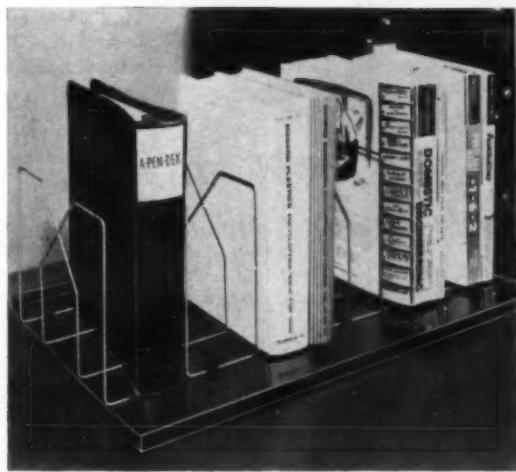
Portable Scale

For Heavy-Duty Use

Portable platform scale for heavy-duty use is available in capacities of 500 lb. (with 8-oz. graduations) or 1,000 lb. (with 1-lb. graduations). Dial features large black figures for easy reading. Adjustable hydraulic damper controls weighing speed.

Price: \$300 to \$650. Delivery: 10 days to 1 mo.

Exact Weight Scale Co.,
541 E. Town St., Columbus
15, O. (PW, 8/29/60)



Desk-Top File

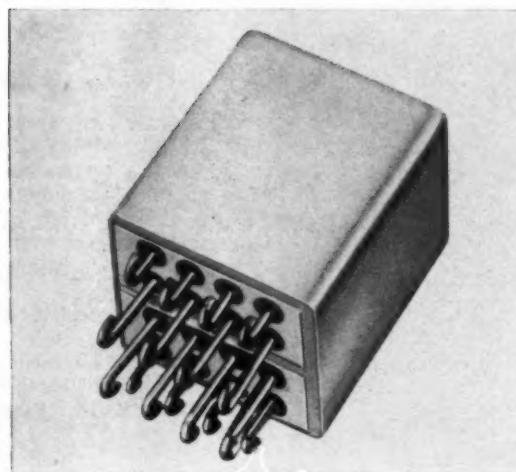
Doubles as Shelf File

"Shel-File" clears desks of file folders, reference books, manuals, catalogues, etc. It comes in 12 in. and 15 in. widths with lengths of 18, 24, 30, and 36 in. Unit may be used also for setting up active and transfer systems on shelves; it comes with sufficient self-adhering label holders for indexing system.

Price: \$8 to \$14. Delivery:

2 wk.

Cel-U-Dex Corp., New Windsor, Newburgh, N. Y.
(PW, 8/29/60)



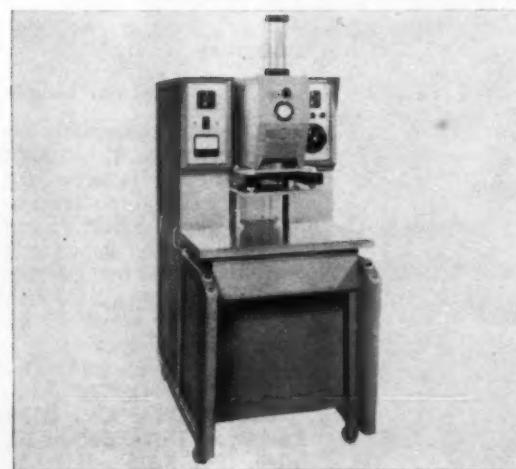
Relay

10 Amp. Capacity

Four-pole, double-throw, 10 amp. relay combines light weight, small size and high electrical sensitivity. It meets MIL-R-5757C and MIL-R-25018 requirements and is available in a variety of mounting styles.

Price: approx. \$20. Delivery 4 wk.

Babcock Relays, Inc.,
1640 Babcock Ave., Costa Mesa, Calif. (PW, 8/29/60)



Sealing Equipment

Carries Safety Features

RF heat sealing equipment is designed for plastic fabrication. This self-contained heavy-duty machine features a fully filtered power supply, full range d-c power control and built-in pressure gage and regulator. Press incorporates double "V" gib and slide construction.

Price: \$550-\$5,000. Delivery: immediate.

Weldotron Corp., 841 Frelinghuysen Ave., Newark 12, N. J. (PW, 8/29/60)

This Week's

Product Perspective

AUGUST 29-SEPTEMBER 4

• ALL ADVANCE REPORTS from Chicago indicate that numerical control will command most of the attention at the big machine tool shows. This will be the first chance that buyers have had to compare systems first hand—since only a few tape units were available at the 1955 exhibits.

• Numerical control is just what the term implies—control by using numbers to tell the machine what to do. Let's trace the development of machine tool control and see where the numbers fit in:

In the average metalworking shop thousands of commands are given to the machines every day, most of them manually. Pressing a button orders the power supply to start the motor, raising a lever rotates the spindle clockwise. Turning a handwheel tells the cutting wheel to move, say, 0.01 in. into the work.

The operator must turn the handwheel to the right or left in order to position the workpiece for machining. If one full turn of the wheel moves the part 0.10 in.—he would have to make 106 full turns to locate the tool 10.6 in. from the edge of the workpiece.

Turning a handwheel to locate a part can be a tedious, time-consuming job, so let's put a small motor on the wheel to do the turning. The motor (called a servomotor) is specially set to turn the wheel exactly 0.10 in. everytime a push button is depressed.

Next step down the line: Replace the push button with a set of dials. Each dial is set to turn the servomotor a certain number of revolutions—and thus move the machine tool an exact number of inches. Each dial represents one significant number in the movement—say the first one reads inches, the second .1 in., the third .01 in., etc. Thus if we set the dials to read 2, 4, 5 the servomotor will move the tool 2.45 in.

This is basic numerical control—and the simplest systems function exactly this way—using a set of dials to tell the machine what to do. The operator resets the dials for each movement. One set is used for the X dimension, another for the Y, and a third set can be added to provide the vertical or Z dimension—say to give the depth of a hole.

• Resetting dials for every machine tool movement is in itself a slow process—so the final step in numerical control is to automate the instructions. Commands are transcribed onto paper or magnetic tape and fed to a tape reader in the control system.

• TWO TYPES OF CONTROL SYSTEMS are available—positioning and contouring. They vary widely in what they can do and in how much they cost.

• POSITIONING (or point-to-point) systems move the machine tool or bed from one fixed position to another. The control tape (or dials) directs the tool to the next working position, but tool operations between the two points are controlled by regular machine functions. Once the desired X and Y dimensions are reached, a vertical motion (Z) may be called into play to control depth. Positioning is widely used in drill presses, jig borers, turret drills, turret lathes, boring mills, riveters, etc.

• CONTOURING (or continuous path control) depends on the path that the tool takes through the work. Machines are much more expensive than point-to-point because the control system must guide the machine every step of the way. Uses have been limited to complete milling and contouring jobs—mostly on government contract work.

• ANALYSIS of the numerically controlled tools scheduled for showing next week reveals several interesting trends:

The overwhelming majority will be positioning types—only 10-20% are expected to use contouring systems.

Over half of the control systems will be built by the tool makers themselves—the remainder are products of companies like General Electric, Westinghouse, and Sperry.

Almost all of the systems will be designed to use standard 1-in., 8-channel punched paper or plastic tape, although a few dial and magnetic tape units will be shown.

Most builders are pushing for quantity markets, will exhibit relatively inexpensive, 2-axis machines. Some 3-axis positioning systems are scheduled for showing, and at least one 4-axis contouring setup will be there.

• EXPERTS ADVISE CAUTION for first numerical control installations. Like the airlines' switch to jets, any transition brings problems. Integrating the new system involves accounting and finance, new worker skills, new material handling methods, and new production techniques.

Your Guide to New Products

(Continued from page 25)



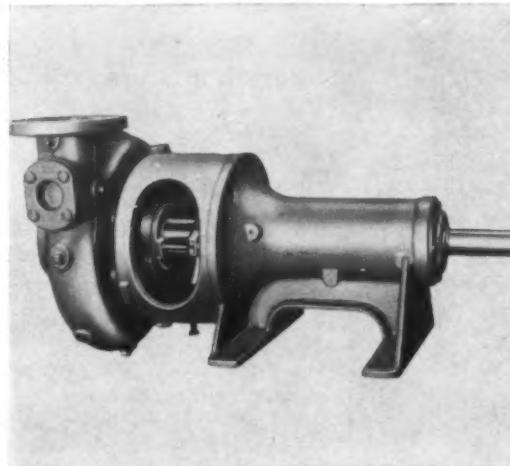
Stamp Applier

Holds 500 Roll

Device works at the rate of 150 a minute and loads rolls of 500 stamps at a time. It handles all denominations including precancelled and air mail. Unit can be stored in any office desk or file and used also to affix stamp-size advertising labels or stickers.

Price: \$42.40. Delivery: immediate.

Mailers Equipment Co., Inc., 38-40 West 15th St., New York, N. Y. (PW, 8/29/60)



Pump

NEMA Matched

"Adapt-Able" centrifugal pumps are standardized with NEMA motor frame dimensions and are available in horizontal and vertical mounted units as well as "biltogther" construction. Pump frames can accommodate several volutes and impeller sizes.

Price: \$125 to \$600. Delivery 2 to 3 wk.

Pump & Hydraulic Div., Fairbanks, Morse Co., 3601 Kansas Ave., Kansas City, Kan. (PW, 8/29/60)



Gloves

Are Neoprene

Neoprene gloves resist heat and chemicals and contain no free sulfur or salts. The gloves have a satin interior finish, and are recommended for applications where high sensitivity is needed. Single wall measurement is approximately .010 in.

Price: \$7.68 (sizes 7 to 9) or \$9.84 (sizes 9½ to 11) per dozen. Delivery: immediate.

Charleston Rubber Co., Inc., 40 Stark Industrial Park, Charleston, S. C. (PW, 8/29/60)



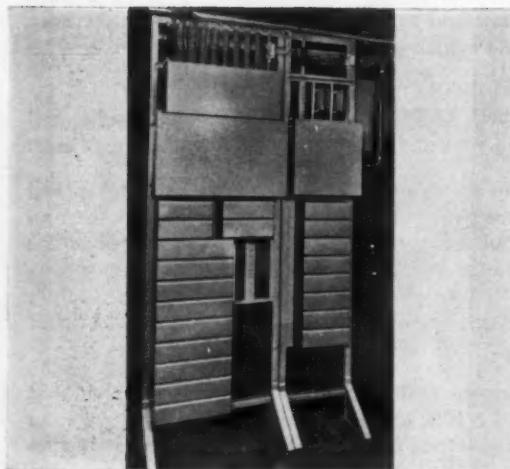
Sealant

Works as Liquid Shim

Plastic sealant holds worn bearings in place. Complete job can be done in maintenance shop in less than 15 minutes. It also can be used on threaded parts to prevent loosening from vibration and to seal pipe and tubing joints against leakage.

Price: \$7.50 (50 cc. bottle). Delivery: immediate.

American Sealants Co., Inc., 103 Woodbine St., Hartford, Conn. (PW 8/29/60)



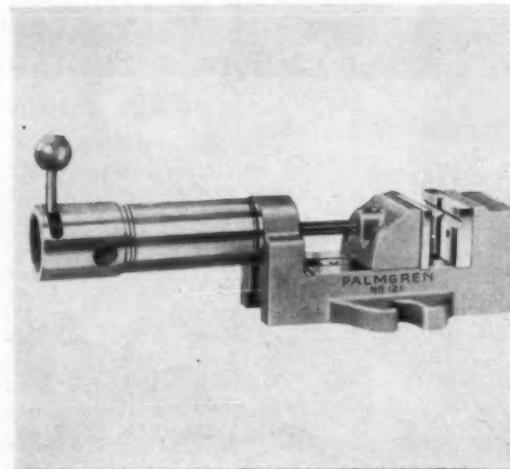
Switchboard

Is Easily Expanded

Automatic internal communications switchboard can be expanded on premises by plug-in relay sets and plug-in connecting cables to provide up to 240 stations and 32 links. Basic unit includes 60-line, 8-link switchboard and power supply, extension frames, and group selector frames.

Price: \$2,500 to \$14,000. Delivery: immediate.

Dictograph Products Inc., Jamaica 35, N. Y. (PW, 8/29/60)



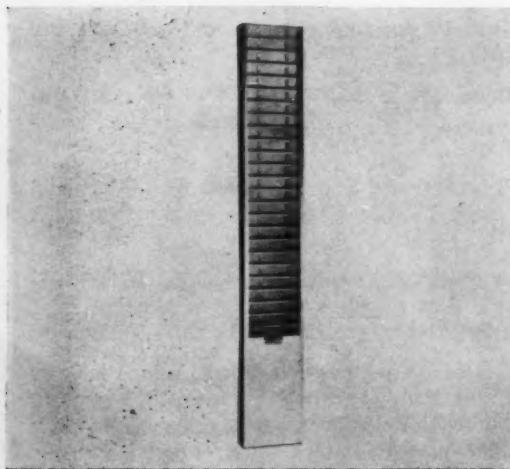
Vise

Works by Air

Model is designed to speed up light drilling, tapping and assembly work. Air vise has a jaw width and opening both of 1½ in., a jaw depth of 1 in. and is 1¾ in. high overall. It can be operated by any available air supply.

Price: \$24.95. Delivery: 2 to 3 wk.

Chicago Tool & Engineering Co., 8383 South Chicago Ave., Chicago 17, Ill. (PW, 8/29/60)

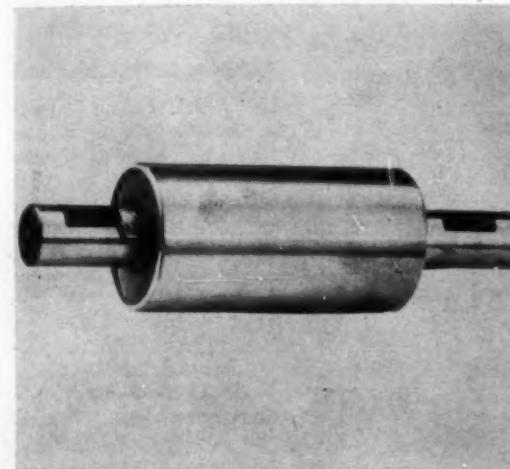


Rack

Holds Time Cards

Steel time card rack holds 4 in. x 6 in. tickets and comes in four colors—grey, tan, mist green, and green. It measures 36 in. x 5 in. x 2 in. and weighs 7 lb. packed. Three other models also are available for tickets from 4 in. x 7 in. tickets to 5 x 8½ in.

Price: \$9. Delivery: 1 wk.
Lit-Ning Products Co., 170 North Robertson Blvd., Beverly Hills, Calif. (PW, 8/29/60)



Bearing

Lasts Longer

Shaft-bearing assembly has life expectancy of at least 20,000 hours. Designed for nominal loads at moderate to high speeds, the bearing can be supplied with its integral shaft contoured to customer requirements. Available with shaft diameter of .4995 in. in lengths to 6 in.

Price: \$.75 to \$.85. Delivery: 4 to 5 wk.

Tann Bearing Co., 3759 East Outer Drive, Detroit 34, Mich. (PW, 8/29/60)



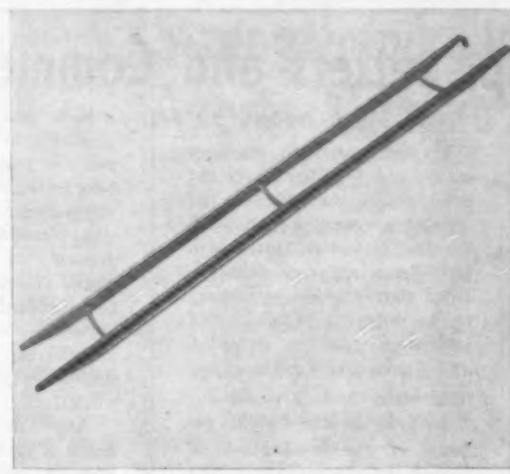
Stripper

Takes Off Epoxy

Self-activating stripper removes epoxy and polyester resins from potted components without damage to parts or materials. Process can be stopped for removal of small parts when complete de-potting is not required.

Price: \$7.95 (1 gal.); \$35 (5 gal.); \$180 (30 gal.); \$330 (55 gal.). Delivery: immediate.

Electronic Components Div., Telecomputing Corp., 14706 Arminta St., Van Nuys, Calif. (PW, 8/29/60)



Skid

Holds Barrels & Boxes

All-steel barrel and box skid weighs less than a wooden model permitting easier handling. Available in three standard lengths: 8 ft., 10 ft., and 12 ft., unit is all welded construction. It measures 14 in. wide overall.

Price: \$36.70 (8 ft.); \$42.05 (10 ft.); \$47.25 (12 ft.). Delivery: immediate.

Palmer-Shile Co., 15997 Fullerton, Detroit 27, Mich. (PW, 8/29/60)

Product News in Brief

Transistorized d-c power supplies for automatic or integrated production systems or electronic applications feature cooling by convection, plus a reduced number of components. The units are coded in color to simplify maintenance. **General Electric Co., Technical Products Dept., Electronics Park, Syracuse, N. Y.**

Insulator link for hoists protects motors, bearings, and other mechanisms from damage from faulty arc welding grounds. Available in 1.5-ton and 3-ton capacities, the device adapts to fit the full range of single line rope hoist, roller chain hoist, coil chain hoist, and 2-part block-type hoist. **Miller Swivel Products Co., Inc., P. O. Box 938, Pomona, Calif.**

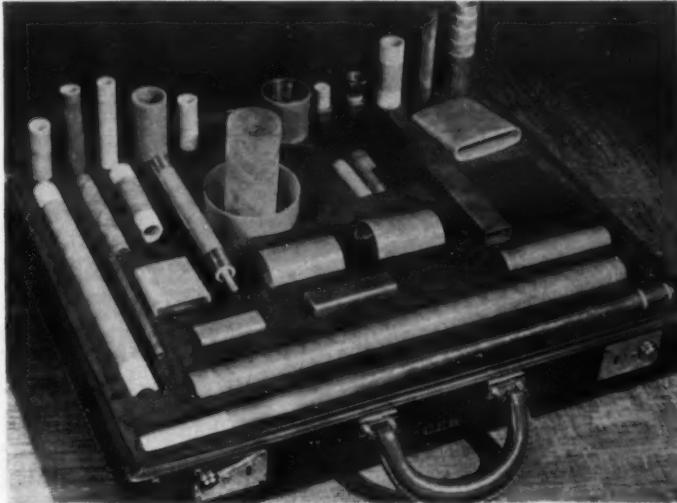
Packless valve features soft diaphragm designed to resist dirt particles trapped against valve seat. The diaphragm is said to provide tight shut-off during closed intervals. The valve is recommended for instrument, air, and other gas and liquid services. **George W. Dahl, Co., Inc., 86 Tupelo St., Bristol, R. I.**

Portable X-ray unit performs circumferential radiography, single-beam or directional work. Unit includes X-ray head, remote control panel box, storage case, and connection cables. The X-ray device can penetrate 1½ in. steel. **Balteau Electric Corp., 5 New St., Stamford, Conn.**

Air-driven stapling head mounts on base or frame to cut, form, and drive staples from coils of standard wire onto wood, plastic, fiber, or paperboard. **Saranac Machine Co., Benton Harbor, Mich.**

Instrument tubing harness has all-black polyethylene core tubes that resist ultraviolet rays and permit high-temperature operation. The material comes in a variety of core tube sizes, in lengths to 1,000 ft. **Samuel Moore & Co., Dekoron Products Div., Mantua, Ohio.**

Automatic wire cutter for electronic and electromechanical assembly work produces wire lengths from 1 in. to 60 in. A special attachment is available to



TWENTY-SEVEN POPULAR SHAPES of filament-wound glass epoxy tubing will cost user less under new standard tooling program announced by A. O. Smith. Buyer previously had to pay tooling charges.

handle lengths to 240 in. Device runs on 115 v., 60-cycle power. **Dickinson & Associates, 940 Alma St., Glendale, Calif.**

End-mill sharpening fixture uses air bearing to minimize friction. Device mounts directly on table of tool grinder. Air-spindle unit requires no lubrication. **Weldon Tool Co., 3010 Woodhill Rd., Cleveland, Ohio.**

Insulating disk for high temperature electronic applications is available in thicknesses from .008 in. to .050 in., and in diameters from .020 in. to .500 in. The device is 96% alumina oxide. **Mitronics, Inc., 1290 Central Ave., Hillside, N. J.**

Ford Bids for Share Of Fork Lift Truck Market

Birmingham, Mich. — Ford Motor Co., one of the nation's largest users of lift trucks, is introducing a lift truck bearing its own name.

Known as the Series 4000 Ford Heavy Duty Fork Lift, the new unit will be sold and serviced by 2,500 dealers of Ford tractors and equipment. The Ford Fork Lift is the result of a joint effort by Tractor-Mater, Inc., Marshall, Mich. and the Ford engineering group.

The Ford Fork Lift is available with either a gasoline or a diesel engine of 172-cu. in. displacement. It is offered with four stacking heights—10 ft., 12 ft., 16 ft., and 21 ft., and two and three-stage masts.

Loads of 4,000 lb. can be handled by the 10 ft. and 12 ft. lift trucks. Adjustable forks or 42 and 60-in face plates are also available.

Minnesota Mining & Mfg. Develops Laminating Film For Use on Thermo-Fax

St. Paul, Minn. — Minnesota Mining & Mfg. Co. has developed a new plastic laminating film for use with Thermo-Fax copying machines.

The film can be used to laminate papers, letters, cards, charts, and photographs, without adding any special equipment to, or making any adjustments on, the copying machine.

Originals and sheets are inserted in the copying machine and emerge a few seconds later completely bonded with a tough, transparent seal.

Average cost of laminating an 8½ in. x 11 in. document on both sides ranges from 9¢ to 12¢, depending on quantities.

FABULOUS "LABELS"



"When labels are curly
and girls are surly,

You can stop all that
with PermaFlat!"

Wise purchasing agent! He analysed the value and protected his company. Now, his labels are printed on Dennison PermaFlat Gummed Paper... the easiest handling label paper ever made. And everybody else is happier, too... printer, production manager, packaging crew. Yes, for better labeling, it pays to specify...

Dennison PermaFlat
Gummed Paper...

AS CURL-FREE as ungummed paper BEFORE, DURING and AFTER printing
Dennison Manufacturing Co., Framingham, Mass., Drummondville, Quebec



TRANSFORMERS

These magnetic devices provide a stabilized output voltage within $\pm 1\%$ for a variation in input voltage of $\pm 15\%$. Complete factory adjustment helps assure uniform operation. There are no electronic or moving parts to be maintained. Roomy wiring compartments provide easy installation. Standard units are available from 15 va to 10 kva for 115-, 230-, and 460-volt circuits. Harmonic-filtered units, for equipment requiring stable supply voltage with low distortion, are also available.

FREE BULLETIN For more information, request publication GEA-5754. General Electric Company, Section 413-02, Schenectady 5, New York.

GENERAL ELECTRIC

Follow Up: Letters and Comment

On Target

Chicago, Ill.

Your "composite image" of the P.A.—most interesting and well done—touches all of us to a greater degree than most will admit (PW, July 4, '60, p. 12, "How the Motivational-Research Experts Size Up Your Personality.")

In my opinion you're hitting awfully close to the truth in all three categories as far as your findings apply to most P.A.'s

However, the trend toward upgrading the purchasing performance of the P.A. is not a rarity but a broad and continuing movement. More and more the need to "run scared" is being relegated to the past. The present demands more adequate qualifications, more intensive training, and a broader concept of the purchasing function on the part of the P.A.

J. C. Frehner
Purchasing Agent
Bowman Dairy Co.

Improving Profits

Norwich, N. Y.

In your July 25 issue there is an article by your Consulting Editor, F. Albert Hayes, regarding the role of a purchasing agent in bettering the profits of his company ("How the P.A. Can Make a Company's Profits Zoom Without Risks That Accompany a Big Sales Push," p. 30).

In his example, Mr. Hayes illustrates his point by comparing the requirements of a sales department for promoting additional sales with the purchasing department requirements for bettering prices paid.

The alternative, as brought forward by the purchasing department, is that capital be directed to a "purchased material cost reduction program." Certainly cost reduction is the aim of any purchasing department and its reason for existence in today's corporate structure.

The first thought that comes to my mind is the comment such a proposal might elicit from top management, particularly one which is "sales-minded" as Hayes has stated. When the purchasing agent brings this point into the discussion, can you hear the corporation president saying, "Well what service have you been performing if not reducing costs? After all, a purchasing department is not a clerical group solely responsible for writing and filing orders.

It is not my intention to criticize nor to argue with the point made. I would only like to know what he—or anyone who has been in the field of purchasing longer than myself—would suggest as a workable method of approaching management with the proposition that purchasing can help in the profit picture, but without having management immediately think performance has been negligent.

How can you convince management that costs can be cut without becoming suspect in previous endeavors toward cost cutting?

Norman W. Presto
Purchasing Department
Norwich Pharmacal Co.

• Mr. Hayes replies:

If you report to management, and I assume you do, presumably you designate the area of accomplishment with the facilities and time which have been at your disposal. Does that provide opportunity to note the possibility of additional savings provided more adequate facilities and time were made available?

Isn't it similar to the request of the production or manufacturing manager for

a new tool to enable better quality and reduced costs of the end product? He has no fear of criticism for offering suggestions to improve company profits, and I see no reason why a purchasing agent should have hesitation in recommending improvements and backing his recommendations with argument and example to justify the cost.

Any purchasing department is seeking to retain the benefits of previous savings

which otherwise may slip away. In addition it is seeking improvement, so I fail to understand why a management would consider a purchasing department negligent because it seeks improvement.

Hillside, N. J.

I was interested in your article on improving company profits.

The basic theory of reducing purchasing costs to increase profit as compared with increasing sales is a sound one. However, unless a purchasing department is completely mismanaged, a reduction in purchases of 8.8% is utterly impossible.

Most well-run purchasing departments hope to effect a 1% to 2% saving per year through improved buying, cost reduction, and value analysis. Since these savings are cumulative, the impact upon company profits is tremendous.

My criticism is that you have exaggerated the profit potential of good purchasing, which in turn may give company management the impression their purchasing departments are either mismanaged or inefficiently operated. I am sure this is not the intent of your article.

E. M. Krech
Director of Purchases
J. M. Huber Corp.

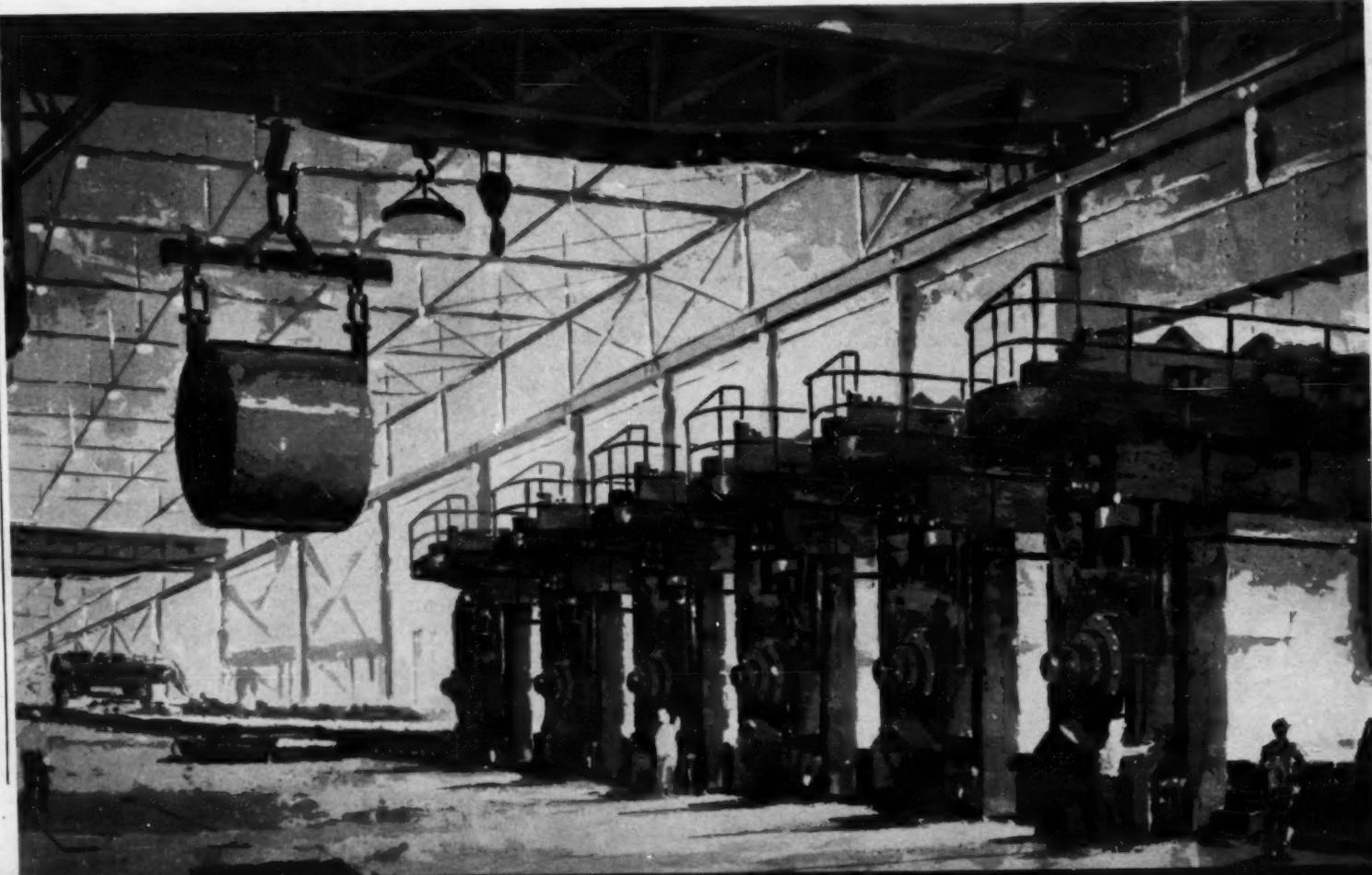
A PROGRESS REPORT FROM REPUBLIC STEEL...

New 56-inch hot mill to roll special grades of high-performance stainless

The new 56" hot rolling mill in Warren, Ohio—first major project in a new capital improvement program—is of particular significance to companies involved in aircraft or missile work. To be completed late in 1960, this new facility is geared to roll special grades of high strength stainless steel now being developed.

Many such improvements and additions by Republic promise major breakthroughs in quality . . . plus the vastly increased range of sizes, types, gages, finishes, and other specifications that will be required.

This is what Republic is doing now to help improve design, reduce costs, assure a level of performance currently unobtainable.



• Mr. Hayes replies:

There are still many company managements that do not have the same enlightened attitude permitting "the well-run purchasing department" to which you refer. If such a department can, as you indicate, hope to secure savings of 1% to 2% per year then it does not seem unreasonable to predict much larger potential available to those firms which have not yet established the kind of managed procurement that we both have experienced and have advocated over the years.

PURCHASING WEEK illustrated the reduction in material cost of 8.8% necessary to attain the increase in dollar profits of \$169,000 equal to 14.1% profit on sales predicted for a sales increase of 20%.

If the illustration had been to attain the profit of 14.1% on sales remaining at 100%, the required decrease in material costs would have been 3.2%.

Similar calculation can be made for any other point deemed attainable by a particular purchasing department.

There are many competent purchasing men chained to their desks because of lack of time to do other than a routine job. PURCHASING WEEK had no intent to subject any purchasing department to criticism by its management but rather to give purchasing a visual aid to sustain its presentation of the value of a department when backed up by the necessary well trained buyers and the tools of purchasing management—such as value analysis, negotiation, market study, multiple source buying, and development of sound purchasing policy.

Strengthening Internal Controls Averts Mistakes and Thievery

(Continued from page 21) which tests the material at the time of receipt to make sure they're up to specifications. Additional checks of material are made in process, and in the testing of the finished material. In many cases independent outside agencies are used to check bulk quantities.

(6) **Reporting of Receipts.** Reports should be made by authorized receiving clerks specifying

what has been received and the condition of the material. If there is no damage or shortage, forward copies of the receiving report to the local purchasing agent, the accounting department, to the inspector, and others specified locally.

If there is damage or shortage, describe the extent of it and require the carrier's agent to sign the notation before the receiving clerk acknowledges the receipt of the material. The purchasing agent should be notified immediately so that the traffic department can initiate any claim.

(7) **Other Controls.** These include such things as periodic accuracy checks of the scales used to weigh incoming materials and giving special attention to unusual receipts such as pick-ups by company truck from local suppliers or transfers from other company plants.

Controlling Stored Materials

(1) **Fix Responsibility.** Responsibility for storage and quantity control should be spelled out and, where economically practical, centralized storerooms established.

(2) **Limited Access.** Enclose storerooms and prevent access by unauthorized personnel. Limit keys to designated personnel.

(3) **Records of Material.** Maintain perpetual inventory records wherever practical.

(4) **Verification of Records.** Take physical counts periodically and check stock records. This may be done by taking a complete inventory or by counting a few items daily.

(5) **Inventory Follow-up.** Check out any significant differences between book figures and physical count. Determine the cause.

(6) **Obsolete Material.** Review records periodically for obsolete, damaged, or slow-moving stock.

How to Control Withdrawals

(1) **Require Approval.** Levels of authorized approval are generally set up by management. For example, manufacturing materials which have little use except in process may be approved by a subordinate manufacturing employee. Tools or supplies which may have value outside of the company should be approved by the foreman. All requisitions should originate outside of the storeroom or shipping department.

(2) **Issuing Material.** Do not issue or permit removal of stocks except upon properly approved requisitions or shipping orders. These requisitions or shipping orders should show the date of withdrawal or shipment of material.

(3) **Shipping Location.** All shipments out of the plant or office should clear through the designated shipping department and be authorized by a duly executed shipping order.

(4) **Accounting for Shipments.** Account for all shipments out of the plant through serially-numbered shipping orders or other means. Reports prepared by the shipping unit should be proved against billings to customers and inventory withdrawal to determine that all shipments have been billed.



Automated order processing system Saves you days...Saves you dollars!

As a customer of Republic, you enjoy speed and efficiency made possible by a network of tele-typewriters linking district sales offices to centrally-located service centers.

Your inquiry is transmitted to such a center (via the Cleveland switching center) in a matter of minutes. Here, teams composed of metallurgists, sales order experts, and mill schedule specialists take over. They (1) check specifications against mill schedules, (2) confirm your order, and (3) relay it to the proper mill for scheduling and processing.

In a matter of a few hours your order is placed on a mill. You are alerted to incoming material the morning after shipment is made. Your specifications are filed on paper tapes to cut service time on repeat orders.

Soon to include an automatic system of scheduling and processing within each Republic plant, this program is another example of Republic's continuing effort to improve service to you . . . the customer.



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CARBON, ALLOY, AND STAINLESS STEEL • METAL POWDER • TITANIUM • TUBING • CONDUIT

This Changing Purchasing Profession . . .

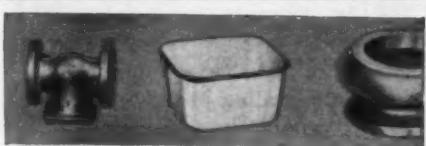
Clarence H. Kissell, purchasing agent for **Goulds Pumps, Inc.**, Seneca Falls, N. Y. retires in September after 43 years service. He is a former president (1939) of the Syracuse Association of Purchasing Agents.

William D. McArthur, assistant purchasing agent, Cincinnati machine shop, **American Can Co.**, succeeds H. A. Streit as purchasing agent. Streit retired after 37 years with the firm.



C. H. KISSELL

W. D. McARTHUR



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AND FOR PORCELAIN ENAMELING

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Do your operations call for deep drawn or spun stainless steel shapes? . . . for stainless steel castings? . . . for vitreous enameled products? Consult Vollrath, a reliable centralized source of supply for metal parts or finished products—to your specifications.

Complete volume production facilities are at your service in our progressive plant: tool and die shop, heavy presses, flow-form spinning machines, efficient polishing equipment, conveyorized enameling shop, and a modern foundry with machining and x-ray inspection for sand and centrifugal castings.

For forming and finishing metal—any size, any shape—consult Vollrath, specialists in quality manufacture since 1874.

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Jack D. Springer was named purchasing agent for **Stanley Aviation Co.**, Denver. He had been with Aerojet Corp., Azusa, Calif.

Shirley K. Brown retired recently as purchasing and stores supervisor for Tacoma's (Wash.) **Department of Public Utilities**, after nearly 30 years of service.

Jack W. Knapp, buyer for the **Western Chemical Div.**, **Hooker Chemical Corp.**, Tacoma, Wash., has been transferred to the division's sales department.

Col. Tom B. Storey, formerly executive assistant, was made director of purchasing for **Milner Enterprises, Inc.**, Jackson, Miss.

Earl A. Junck has been appointed purchasing agent, **Worden Allen Co.**, Milwaukee. He had been with Harnischfeger Corp., Milwaukee.

S. W. Marshall, Jr., succeeds **Maynard E. Robertson** as director of purchasing, **Briggs-Weaver Machinery Co.**, Dallas. Robertson, a former president of the Purchasing Agents Association of Dallas, is retiring after 19 years service.



Don Flickinger joined **Tri-State Service, Inc.**, Toledo, as purchasing officer and treasurer. He had been purchasing agent for **Electric Autolite Co.**, Toledo.

John H. Inskeep succeeds **James K. Hall** as manager of the purchasing department, **Columbus & Southern Ohio Electric Co.**, Columbus, Ohio. Hall retired after 48 years service.

Norman D. Paige was advanced to purchasing agent for the **Data Processing Systems Division**, **Smith-Corona Merchant Inc.**, Oakland, Calif.

A. C. Wilander has been promoted to manager of the purchases and stores department, **Western Operations, Inc.**, **Standard Oil Co.** of California, San Francisco. Other appointments to the Western Operations purchasing staff include **N. D. Tichener** as assistant manager (purchasing) and **W. W. Sharon** as assistant manager (operations).

William A. Simons was advanced from senior buyer to manager of the purchasing department, **Shure Brothers, Inc.**, Evanston, Ill.



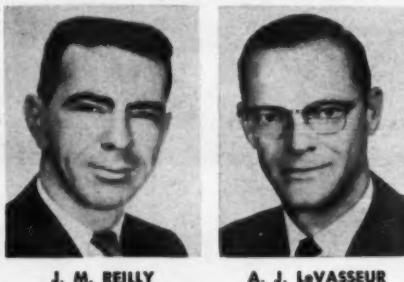
W. A. SIMONS

A. C. WILANDER

Robert A. Brothers joined **Bradley Semiconductor Corp.**, New Haven, Conn., as purchasing agent and inventory control manager. Brothers was formerly with the **Waterman Bic Pen Corp.**, Seymour, Conn.

Howard Fetterhoff has been advanced to manager-purchasing at Denver by **Continental Airlines**. **Orville Lipscomb** was made manager purchasing at Los Angeles.

John M. Reilly, assistant purchasing agent, succeeds **Arthur J. LeVasseur** as purchasing agent, **Bristol Divisions, Associated Spring Corp.**, Bristol, Conn. LeVasseur has been made spring works manager for the divisions.



J. M. REILLY

A. J. LEVASSEUR

Obituaries

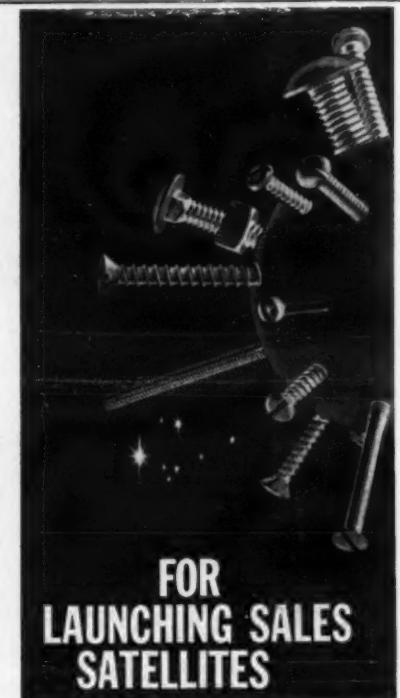
Arthur F. Kramer, 47, former purchasing agent for **P. R. Mallory Co.**, Indianapolis, died July 24. The last nine years he did sales promotional work for Heyster Co., Portland, Ore.

James Rudolph Jackson, 52, purchasing agent for **Campbell-Taggard Associated Bakeries, Inc.**, Dallas, died Aug. 1.

Thomas S. Dunstan, 61, general stores manager of the purchasing and stores department of **Consolidated Edison Co.**, New York, died Aug. 3.

Joseph Torchio, 48, assistant purchasing agent for **New York Univ. Medical Center** for the past six years, died Aug. 8.

Wayne M. Wilson 61, assistant director of purchasing for **Amchem Products Co.**, Ambler, Pa., died Aug. 11.



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FASTENERS

If you're making sales plans for a new model or new product soon to be launched into orbit. Southern fasteners will help assure its success.

Southern specializes in the manufacture of standard fasteners. Top quality materials and workmanship are combined to produce the most dependable production fastener your money can buy. Burr-free heads and durable threads help step up driving speed in assembly, and thus costly down-time, rejects and injured materials are reduced.

Order USA-made Southern fasteners today. Call your nearest Southern distributor, or write direct to factory: **Southern Screw Company**, P.O. Box 1360, Statesville, N. C.

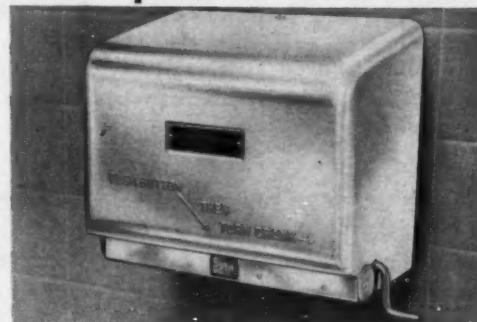
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NEW Turn-Towl cabinet can't ever rust...it's polished aluminum!

"Biggest economy news since the Turn-Towl itself!"



You're looking at the first anodized aluminum cabinet on the market and its built-in advantages: no rust, wear, finger marks—easy to clean.

Thoroughly tested for two years, this polished aluminum Turn-Towl cabinet combines new durability and service with the proven towel control. For the name of your nearest distributor, write Dept. 1096.



Mosinee Turn-Towl cabinets are leased free for use with Mosinee towels

In the World of Sales . . .

Raymond T. Leary, general sales manager, **Cornell-Dubilier Electronics Div.**, **Federal Pacific Electric Co.**, South Plainfield, N. J., has been advanced to vice president-marketing by the division.

Joseph E. Healy was made manager of military sales for **Zenith Plastics Co.** of Gardena, Calif.

Gustav A. Hoffman has rejoined **Walworth Co.**, New York, as vice president. When he left the firm in 1959, after 27 years service, he was assistant vice president in charge of metropolitan division sales.

Kenneth Rathke has taken the post of national sales manager of wheel goods, **Evans Products Co.**, Plymouth, Mich. He had been vice president in charge of sales for **Lindberg Products Co.**, Skokie, Ill.

James B. Kelley was elected eastern regional vice president-marketing, **Gulf Oil Corp.**, New York. **Robert B. Phillips** succeeds him as division manager, **New York Sales Div.** Four other division managers have also been appointed: **B. R. Lawlor**, **Philadelphia Sales Div.**; **H. A. Goddard**, **Syracuse Div.**; **A. A. Stambaugh, Jr.**, **Boston Sales Div.**; and **Ira F. Archer**, the newly established **Pittsburgh Division Sales Office**.

William G. Salatich, general sales manager of **Gillette Safety Razor Co.**, Boston, Mass., has been appointed a vice president of the firm.

John A. Summerlin joined the **Chase Bag Co.** paper mill at Chagrin Falls, Ohio, as sales manager. He had been director of sales for **Monadnock Paper Mills**, Bennington, N. H. **James A. Diamond**, who also maintains sales offices at the mill location, continues with his present responsibility in paper-mill product sales for Chase Bag.

P. Kelly Kane, sales manager of **Dixie Mill Supply Co., Inc.**, New Orleans, La., has been elevated to vice president.

Philip J. Parker has been named general sales manager of **Sperry Products Co.**, Danbury, Conn., a division of **Howe Sound Co.** Parker had been executive vice president of **Peterson Machine Tool Inc.**, Merriam, Kan., acquired recently by Sperry Products.

WHERE-TO-BUY

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SPACE UNITS: 1-6 inches.
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the Burlington, Iowa, division of **Regal Ware, Inc.**, Kewaskum, Wis.

Seymour Mintz was appointed vice president and general sales manager by **Capehart Corp.**, Richmond Hill, N. Y.

Donald J. Wallace was made district sales manager for **Coffing Hoist Div.**, **Duff-Norton Co.** with headquarters in Chicago.

John R. Jones has been named New York-New England district sales manager for **American Potash & Chemical Corp.**

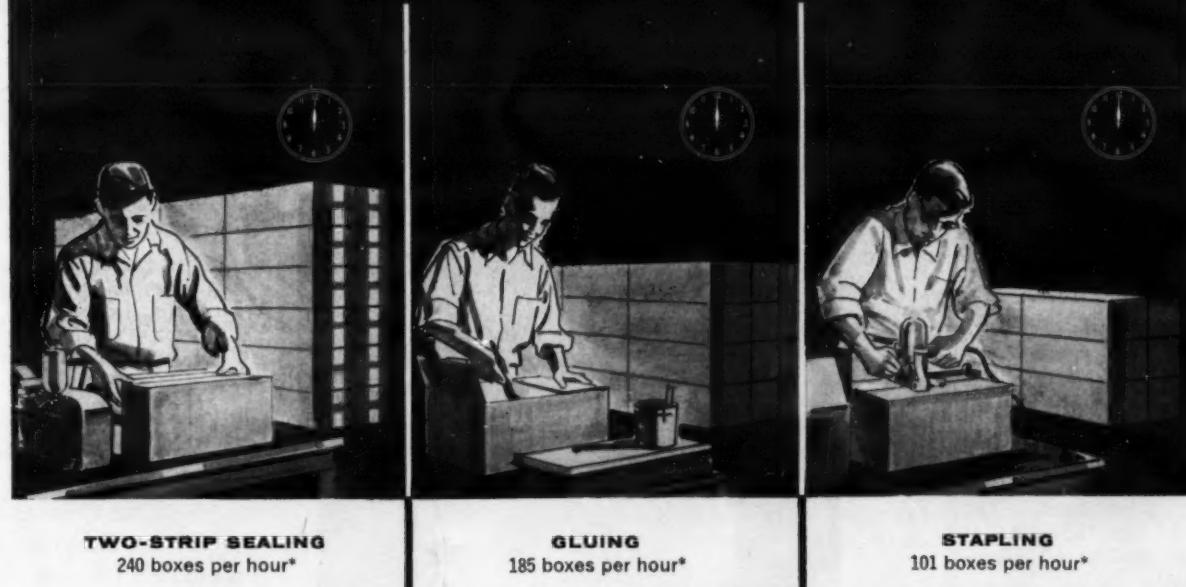
Carl Wertz was appointed sales manager, **Premium Div.**,

James F. McDermott has been advanced to sales manager of its New York and Newark, N. J., factory sales and service branches by **Clark Equipment Co.'s Industrial Truck Div.**

Jerome R. Gross has moved up to manager of the Cleveland district sales office of **Dravo Corp.**

Donald R. Harter has been assigned the post of district manager of its Houston, Tex., office by **Vickers Inc.**, division of **Sperry Rand Corp.**

Here's How 2-Strip Sealing Saves Shipping Room Costs



TWO-STRIP SEALING
240 boxes per hour*

GLUING
185 boxes per hour*

STAPLING
101 boxes per hour*

The two-strip sealing method has been made possible by the use of reinforced sealing tape. It has revolutionized carton sealing methods by providing remarkable savings in labor and time. Tests indicate that it is faster than either gluing or stapling. Furthermore, you save two-thirds the time needed for the conventional way of tape-sealing cartons. All carriers have approved the two-strip sealing method using reinforced tape.

Write for further information which will help your shipping room secure these economies. Address our home office in Attleboro, Massachusetts.

*Results of tests by independent laboratory

reinforced paper, foil and plastics for construction, industrial packaging and agriculture

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In Canada: Murray-Brantford Ltd., Montreal

Avco Claims Big Cost Savings In Making Stainless Steel Honeycomb

Cincinnati—Development of a new and much cheaper method for producing stainless steel honeycomb for space vehicles, missiles, and supersonic aircraft has been announced by the Nashville Div. of Avco Corp.

The method, known as Avcoramic tooling, makes possible the brazing of very large pieces of the honeycomb structure in almost any shape and size and to exacting specifications, the company said.

Avco said the method, which involves the use of specially designed ceramic contour brazing forms, will result in significant cost savings from present techniques and will open many new fields for its use.

"By accomplishing the entire brazing, conditioning, and aging cycle in a single, low-cost tool,

the Avcoramic process makes it possible to produce such structures at lower cost, and this, in turn, will make it economically feasible to use stainless steel honeycomb in many new applications," a spokesman said.

The key to the new process is the ceramic material developed by Avco. It resists thermal shock, can be cast with tolerances of three-thousandths of an inch and can be worked into any required shape.

Adhesive Product Corp. Launches Initial Phase Of \$5-Million Expansion

New York—Adhesive Product Corp. has started construction of a 23,000 sq. ft. addition to its plant here as part of a two-phase, \$5-million expansion program.

The new, fully automated facility, will produce "Visopox," one of Adhesive's newly developed polymers, billed as a product that incorporates "the most outstanding features of rubber, epoxy resins, and polyvinyl acetate."

In addition, the company, a maker of latex adhesives and coatings, will begin building an additional 46,000 sq. ft. plant early next year, in the second phase of its program.

Company officials also indicated plans to construct new facilities in the South and West, but details were not disclosed.

Conveyor Firm Expands

Los Angeles—A seven-month-old conveyor manufacturer, Bivans Conveyor Co., has launched a \$200,000 expansion of its facilities here.

In addition to acquiring three new factory buildings adjacent to its present facility, Bivans will install an additional complete machine shop, welding, steel forming and fabricating shop, and engineering department. The company, is an affiliate of Bivans Corp., makers of cartoning equipment.

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REMOVES IMPURITIES: Distillate hydrotreater at Shell Oil's Houston refinery can handle up to 30,000 bbl/day of furnace oil and diesel fuel.

Hydrotreater on Stream

Houston, Tex.—Shell Oil Co. has put a new 30,000-barrel/day hydrotreater on stream at the company's fuel refinery here.

The new unit is designed to improve the quality of its furnace oils and diesel fuels by desulfurization. The process uses the Shell trickle flow technique which filters feedstocks through a catalyst. It replaces the older acid and "sweetening" method used in the refinery's treating department.

The unit is Shell's third distillate hydrotreater. The other two are in Wood River, Ill., and Shellburn, B. C., Canada.



THE DENTS IN THE TUBE

give you more
light with
fewer lamps

New General Electric Power Groove* Lamps are certainly the queerest looking fluorescents ever made. But those dents are what make it possible for the G-E Power Groove Lamps to give you nearly *twice as much light* as the next most powerful fluorescent lamp type! And only General Electric can make them. General Electric makes its own glass (as it does *all* lamp components) and this engineering know-how has enabled G. E. to come up with the unique grooved design that lengthens the arc to give you extra light.

The same General Electric research that created this new years-ahead light source is giving you more and more light for your money in every G-E Lamp you buy—from the standard 40-watt G-E fluorescent, the most widely used fluorescent lamp type in the world, to the new smaller, whiter, brighter G-E 100-watt bulb.

Ask your General Electric Lamp distributor to recommend the best type of lamp for your lighting needs. General Electric Company, Large Lamp Dept. C-030, Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL ELECTRIC

*General Electric trademark for its non-circular cross section lamp.

Rock Salt Buyers Seek to Stop Identical Bids

(Continued from page 1) pension of City Purchasing Commissioner Joseph Spagna.

Spagna was charged by the State Investigations Commission with manipulating contracts to favor a long-time friend. He resigned his post Aug. 18, but denied any wrong-doing.

The Justice Dept.'s inquiry into the rock salt situation will center on Springfield, Ill., and will involve some 14 leading producers and suppliers.

Earl A. Jinkinson, chief of the Justice Dept.'s Antitrust Division here, told PURCHASING WEEK that his office is currently completing "a massive documentation" of the pricing and marketing practices in the rock salt industry.

He said this was a compilation of facts and figures garnered from subpoenaed suppliers records as well as information contained in questionnaires sent to federal, state, and local purchasing agents throughout the country.

Jinkinson said the practice of identical bidding in the industry "appears to be universal," but added, "this alone does not

prove suppliers have violated the antitrust act. We must prove price collusion."

He said he expected to call on a number of purchasing agents to testify once the grand jury hearings get into full swing.

A check by PURCHASING WEEK found that most governmental buyers were having little success in stimulating competition among rock salt suppliers in an attempt to get lower prices.

Charles F. Sullivan, state purchase and property director for New Jersey, said he had been hopeful of greater competition this year. But when he opened bids Aug. 16 on 21,000 tons of the material, he said, he again found almost identical price quotations.

"This year, however, I received a bid from a supplier of a competitive material, a compound called Monroe X-73 made by the Monroe Co. of Cleveland," he said. "We're now putting it through extensive tests both at our highway department laboratory and our own purchase department facilities, to see if it meets our specifications."

Sullivan said that if this ma-

terial can do the job, "we may be in for a big saving. The supplier claims that 1,500 tons of this material can do the same job as 21,000 tons of rock salt. This could cut our costs 25% to 30%.

Edward I. Baker, sales vice president for the Monroe Co., said his firm was making an all-out effort to win major contracts awards from state, city, and municipal agencies as well as well as from other large users of rock salt.

Several Breakthroughs

"We have had several major breakthroughs recently on such contracts in Wisconsin, Michigan, and Canadian municipalities. Last year, for example, the Delaware Bridge Authority purchased 10 tons of X-73, mainly for experimental purposes. This year the authority has doubled its order."

Another governmental buyer, John Ward, Chicago P.A., has been giving the city's entire rock salt contract to one supplier for the past five years, hoping that "the other suppliers would get hungry or mad enough to offer competitive prices."

"But it hasn't worked yet," Ward said.

New York State Purchasing Director Douglas Coupe has called upon the state attorney general to look into the matter of identical bids. He has given the attorney general the records on rock salt purchases over a number of years.

Threats 'Sometimes' Work

Massachusetts' purchasing director, Bernard Solomon, brought prices down last year by threatening to purchase abroad. But the threat isn't working this year.

"When I asked for and received bids from foreign suppliers last year," Solomon said, "domestic producers met the bid and dropped their price \$1 per ton. Between this and a rail rate cut of \$1 per ton under Section 22 of the Interstate Commerce Act (where railroads may lower rates for political subdivisions) I saved \$120,000."

But this year, Solomon said, rock salt suppliers bid the old price—reinstating last year's \$1 cut. "I've thrown all the bids out and I'm rebidding the contract. But I've got a feeling the producers aren't taking my threat seriously."



300 pages, into a compact 40-page book.

"I was aware that shopmen wouldn't have the time and patience to stay with a big tome," he explained.

His work, titled "Semi-Solid Die Castings," has already received official recognition in the form of an honorable mention in a competition sponsored and directed by the Copper and Brass Research Assn.

Price Changes for Purchasing Agents

Item & Company

	Amount of Change	New Price	Reason
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INCREASES

Vinyl compounds (Goodyear)			
Flooring and countertop lines, sq. yd.....	.045		higher costs
Roll goods, sq. yd.....	.18		higher costs
Iodine, crude, lb.....	.20	\$1.10	higher costs
Chromium Products (Chrom. Min. & Smelt. Corp.)	4% avg.		higher costs
Trichloroacetic acid, carlot, per lb. in 300 lb. drums.....	.02	.52	
4 Tertiary butyl catechol, per lb. in 10 lb. drums.....	.30	\$2.50	

REDUCTIONS

Aerolein, fob, tankcar, lb.....	.15	.31	prod econs.
Glutaraldehyde, fob, tankcar, lb.....	.06	.13	prod econs.
Transistors: Silicon (Raytheon)	10-58%		prod econs.
Germanium (Minneapolis-Honeywell)	20-30%		competition
Gallium arsenide tunnel diodes (G.E.)	93%		volume prod.
Silicon controlled rectifiers (G.E.)	47-51%		volume prod.
Furfural, tankcars, lb., E. Coast.....	.005	.115	lower transp.

This Week's

Purchasing Perspective

(Continued from page 1)

AUG. 29-
SEPT. 4

• Some materials handling equipment firms feel customers are "sitting on orders," waiting for a clearing in their own profit and production pictures. But the number of proposals out is encouraging and bidding activity is reported high.

• Cutting tool manufacturers give mixed reports, but generally describe business as steady and some Midwest firms running 5% to 15% above last year.

• Auto parts manufacturers report steady volume but stress that Detroit is playing it extra cautious this year, is shying away from heavy ordering—in effect, "playing it by ear."

• Midwest stampers describe their order situation as quiet, although some firms are receiving calls for quotes at a brisker pace, indicating a possible major increase in fourth quarter production.

• • •

BUYERS' GUIDE—Armco Steel's \$1.8-million expansion of steel processing and warehousing facilities in Baltimore will increase the firm's bar shipping capacity by 50%.

—Rockwell Manufacturing stresses the concept of purchasing men as salesmen. Carl Nedderman, vice president of Edward Valves, a Rockwell subsidiary, said last week purchasing men are a firm's most important salesmen because "they must sell their companies as the best customers for the best vendors to do business with" and therefore should receive the best vendor performance.

—New York City, where charges of purchasing inefficiency and waste forced purchase department shakeups, is striving to draw-up "scandal-proof" contract forms. New documents, designed to make it clear who is responsible for weighing, sampling, and certifying purchased material, will get first big test in two weeks when rock salt contracts are let. NYC has only 17,000-ton rock salt stockpile now, needs 60,000-ton backlog by Oct. 1.

Government Hires Researchers To Study Drop in Machine Tool Orders

Washington—The Commerce Dept. has hired a Massachusetts research firm to find out why metalworking plants aren't buying more machine tools.

The department's Business & Defense Services Administration wants to know why obsolescent tools are not being replaced at a faster rate. The survey, by Arthur D. Little, Inc., of Cambridge, will be completed in about 30 to 60 days.

This move coincided with the latest National Machine Tool Builders Assn. report that machine tool orders in July fell 35% from July, 1959, and 23% from June. New order totals for cutting tools in July according to NMTBA estimates, were \$32,750,000, compared with \$42-million in June and \$50,700,000 in July a year ago.

Orders up to July 31 this year, however, were slightly ahead of the like period a year ago, totaling \$289,600,000, compared with \$287,850,000 for the first seven months of 1959.

Little is surveying a "representative sample" of U.S. metalworking plants in what the BDSA considers a pilot study. Depending on the kind of information that results from the project, Little will be authorized to expand the study to cover additional plants with more detailed questions.

The survey grew out of a plea made last year to the Office of Civil Defense Mobilization by the National Machine Tool Builders Assn. The association sought aid to bolster sagging sales.

One thought the tool builders had was to impose import restrictions; and while OCDM Director Leo A. Hoegh agreed the industry was essential to national security, he was reported to have put a damper on the import restrictions idea. Instead, his agency came up with a program to "determine how to strengthen" the machine tool industry. A key element of the program was the Arthur D. Little survey.

Behind much of the machine tool industry's problems, many Washington officials feel, is the fact that metalworking plants in general are tooled up with out-of-date production equipment. If they could be encouraged to modernize their facilities, it is believed here, there would be two benefits:

• Overall U.S. production capacity would become more efficient.

• The economic well-being of the tool builders would be bolstered.

Some government officials close to the machine tool scene claim depreciation is not the key to accelerating industry investment in new tools. Many tool builders have clamored for liberalized tax depreciation rules to spur tool buying.

The government experts, however, are interested in other factors which might affect a metalworking company's decision to buy new production equipment to a greater degree: labor union resistance, corporation organization and management, the effect of corporate dividend-payment policies, etc.

Show Stresses Tiny Components, Lower Prices

(Continued from page 1) heralding its new neomite as the "world's smallest relay," claiming it as the first mass-produced precision relay ever to be placed in a transistor can.

A similar superlative was claimed by Globe Industries for its new flat motor which weighs only 1.7 oz., four of which could fit into a cigarette pack. And Airpax Electronics unveiled its new "smallest in the world" chopper, which weighs 9 grams and is priced at from \$40 to \$50 each in quantity.

There were promises at Wescon that extensive research and development in new electronic areas soon would pay off in hardware. In the field of plasma electronics, for instance, one electronics firm announced that it has evolved a process called plasmionic monocrystalline film deposition which will be incorporated in a new series of trimmer potentiometers to be introduced in 1961. General Electric announced that by October it would be able to offer its close-spaced vacuum thermionic converter in commercial quantities. And Transitron Electronic Corp. unveiled its binistor, a new semiconductor device for use in switching and storage circuits.

Other Wescon exhibits that attracted a lot of attention included:

• DoAll Co. introduced its micro-slicer, a machine capable of slicing metal ingots into wafers 1/100 in. thick.

• General Electric displayed its new compactron unit, which combines the functions normally performed by several electronic tubes or semiconductors.

• Raytheon introduced a number of new products, including small size electro-optical relay which can replace substantial portions of relays, potentiometers, and commutators in their existing applications.

Packaging more work in less space was also in evidence in an encapsulated electronic circuit shown by C & K Components, Inc., which achieves densities of up to 250,000 parts per cu. ft. The same was true of Epsco's subminiature translators which are capable of providing 5-million to 30-million independent voltage data conversion operations a second.

And Mincom Div. of Minne-

Aluminum Gets Lift in Bid For Gains in Can Market

(Continued from page 1) bring aluminum container costs in line with tinplate cans.

The spokesman for National Machinery said that talks were going on with the big independents—American Can, Continental Can, and National Can—but none of the Big Three would confirm or deny this.

Sources close to the industry say that if these "talks" culminate in orders, it could mean a major gain for aluminum in its drive to win a bigger share of the metal container market. For, these observers believe, any such gains will have to come via the impact extrusion technique, which has a lower cost potential for aluminum can fabrication than the two other methods—conventional three-piece operation and deep drawing.

Price Changes

These price cuts were announced at the exhibit:

- Hughes Aircraft Co.'s Semiconductor Div. plans another reduction on its diodes effective Sept. 15. The new price of silicon general purpose diodes will be down some 55% from what they were earlier this year.
- Raytheon Co.'s Semiconductor Div. reduced prices on various silicon transistors by as much as 58%.
- Electra Metal Film is cutting its price on metal film resistors by 60%.
- Motorola issued a new price schedule Aug. 23, reflecting a general drop in the price of zener diodes.
- Voltron is marketing a new meter for \$56 which does the same job as the meter which last year sold for \$90.

sota Mining and Manufacturing Co. showed its new video band unit which can record and reproduce 14 tracks of both analog and pulse signals on a 1-inch magnetic tape whereas formerly only 7 were possible in that space.

Distributors and manufacturers met at the

show to discuss a serious freight problem affecting the West Coast electronics industry.

They pointed out that normal delivery channels were just too slow for their own fast-stepping industry. Some firms, such as Raytheon, said they have turned to air freight to alleviate the problem.

Strike-Threatened Pennsy Accuses Union Of Butting Into Purchasing

(Continued from page 1) highlighted exchanges between PRR Vice President James P. Newell and TWU president Michael J. Quill.

Newell said the railroad refused to "give one inch" on management's right to decide who will do what work, especially on leased equipment. Newell said the union's demands went far beyond restrictions imposed on any other railroad with respect to the right of railroads to purchase equipment, materials, and supplies, or to have repair work performed by manufacturers or other outside concerns.

Quill had said the two wanted the PRR to alter its policy of hiring outside contractors and outside craft workers to maintain leased equipment and criticized the railroads' purchasing management for "farming out" work. Guy Knight, PRR's labor relations director, said the union had demanded that "we agree not to sell or lease equipment if it deprived their men from doing repair work."

While steel buyers were not expressing great alarm over the production snag at U.S. Steel, a spokesman for the corporation said delivery schedules would be disrupted even more than they are unless the rail dispute is settled soon.

The dispute involves United Steelworkers and the Union Railroad Co., a U.S. Steel subsidiary which serves the firm's Pittsburgh-area plants. It hauls molten iron from blast furnaces to steel-melting open hearths, and steel ingots to rolling mills where they are squeezed into finished-product forms such as sheet or plate.

Union railroad employees are demanding a contract following the pattern of steel-mill wage and benefit agreements. The company has been offering pacts based on wage agreements covering railway workers on lines not connected with steel mills.

The U.S. Steel spokesman said the strike, called Aug. 18, has caused spotty disruptions in delivery, mainly because pickets

were "interfering" with shipments of material into and out of the mills by truck.

Disruption of delivery also was the big concern of purchasing agents dependent on the Pennsy for their shipments.

"We're not pushing the panic button yet," said the purchasing director of a major packaging material firm in Philadelphia, "but we're getting prepared to divert shipments to other carriers just in case."

"But we're not kidding ourselves," he added. "If this strike comes off and goes any length at all, truckers and other carriers will never be able to handle all the business and make on-time deliveries."

The strike threat, which would involve some 20,000 non-operating personnel, arose from union demands that much of the maintenance work performed for the road by outside concerns be done by its employees. The road has said it would lose important managerial rights if it acceded.

W. Va. Pulp's Holdings In U. S. Envelope Spark Action by Antitrust

Washington—The Justice Department charged West Virginia Pulp and Paper Co. acquired control of United States Envelope Co. in violation of antitrust laws. In a suit filed in U. S. District Court in New York, the Department asked that West Virginia be required to divest itself of its stock holdings in U. S. Envelope, the nation's largest envelope maker.

The complaint charges the competitive position of both companies was unfairly enhanced as a result of the acquisition last May. Robert A. Bicks, head of Justice's antitrust division, said the suit resulted from a study of "the trend toward concentration in the paper industry."

West Virginia's sales in 1958 were about \$233-million; U. S. Envelope's sales in 1959 were about \$50-million.

Late News in Brief

SBA Urges Aid to Import-Stricken Firms

Washington—The Senate Small Business Committee said last week the federal government should give assistance to industries that are hurt by tariff concessions made in accordance with foreign policy requirements.

The committee suggested that small businessmen who suffer when imports are increased perhaps should be considered for loans, tax concessions, and other readjustment aids.

Reeves Eyes Curtiss-Wright Curon Div.

New York—Curtiss-Wright Corp. said last week it was dicker-ing to sell its Curon Plastics Div. to Reeves Bros., Inc., a major textile manufacturer. Reeves has been associated with Curtiss-Wright as distributor of Curon's polyurethane foam.

Inland Container Denies Monopoly Charge

Washington—Inland Container Corp., Indianapolis, has denied charges that it violated anti-merger laws by acquiring the Louisville, Ky., plant of General Box Co., Des Plaines, Ill.

The Federal Trade Commission charged that the acquisition by Inland, the nation's third largest maker of corrugated containers, tended to create a monopoly in the manufacture of containers in the Louisville area and elsewhere.

Inland asked that the complaint be dismissed on grounds that its business continues to be highly competitive.

Higher Tariff Rejected

Washington—The Tariff Commission ruled last week that domestic producers of cast-iron soil-pipe fittings do not need additional tariff protection. The commission said that imports of the fittings were not sufficient to injure the domestic industry and that no change in the present 10% tariff was required.

Warren & Swasey Studies Price Hike

Cleveland—Warren & Swasey Co. told stockholders last week that steadily rising costs, coupled with a severe drop off in orders, may force the company to increase tool prices.

Mahoning Div. Ends Operations

Niles, O.—Mahoning Valley Steel Co., a General Electric subsidiary, is permanently closing down operations of its steel sheet rolling division here. The company's Tubular Division, however, will continue to operate.

Rails Opposed in Barge Line Deal

Washington—Major airlines, truckers, and inland waterway operators formed a solid wall of opposition last week against the attempt of the Illinois Central and Southern Pacific Railroads to buy the John I. Hay Barge Line of Chicago. ICC hearings on the proposed purchase are continuing.

Browne Named to Succeed Spagna

New York—Mayor Wagner said last week he will appoint Deputy City Administrator Roger J. Browne as Commissioner of Purchase to succeed Joseph V. Spagna. Spagna resigned under fire Aug. 18 following an investigation or rock salt bids.

Remington Plans Move to Europe

Elmira, N. Y.—Remington Rand was reported last week preparing to transfer its manufacture of standard and portable typewriters to a European site by next Jan. 1. The reports indicated the move was prompted by stiff competition from low-cost foreign producers.

Johnson's Wax Develops 'Mini-Drum'

Racine, Wis.—S. C. Johnson & Son is marketing its maintenance supplies in a new "Mini-Drum," 12-gal. container.

The new size, which is in addition to the regular 30 and 55-gal. drums, now "makes it possible for purchasers of comparatively small volume amounts to buy waxes, finishes, and cleaners at quantity prices," according to Edward J. Grant, general manager of the Service Products Div.

Grant pointed out that the lower cost per gallon for maintenance products in the new size is due to the fact that the container's weight is the most economical for shipping. Four metal-working products will also be sold in the 12-gal. drum.



MINI-DRUM, shown here with bigger containers, enables small user to buy at quantity price.

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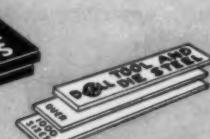
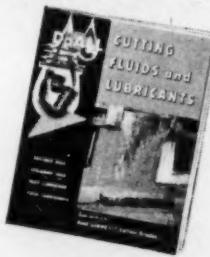
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